Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1621con

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	JAN 02	STN pricing information for 2008 now available
NEWS 3	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS 4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS 5	JAN 28	MARPAT searching enhanced
NEWS 6	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS 7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 8	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS 9	FEB 08	STN Express, Version 8.3, now available
NEWS 10	FEB 20	PCI now available as a replacement to DPCI
NEWS 11	FEB 25	IFIREF reloaded with enhancements
NEWS 12	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS 13	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification
NEWS 14	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS 15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS 16	MAR 31	CA/CAplus and CASREACT patent number format for U.S. applications updated
NEWS 17	MAR 31	LPCI now available as a replacement to LDPCI
NEWS 18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 19	APR 04	STN AnaVist, Version 1, to be discontinued
NEWS 20	APR 15	WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats
NEWS 21	APR 28	EMBASE Controlled Term thesaurus enhanced
NEWS 22	APR 28	IMSRESEARCH reloaded with enhancements
NEWS 23	MAY 30	INPAFAMDB now available on STN for patent family searching
NEWS 24	MAY 30	DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option
NEWS 25	JUN 06	EPFULL enhanced with 260,000 English abstracts
NEWS 26	JUN 06	KOREAPAT updated with 41,000 documents
NEWS 27	JUN 13	USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications
NEWS 28	JUN 19	CAS REGISTRY includes selected substances from web-based collections
NEWS 29	JUN 25	CA/CAplus and USPAT databases updated with IPC reclassification data

NEWS 30 JUN 30 AEROSPACE enhanced with more than 1 million U.S. patent records
NEWS 31 JUN 30 EMBASE, EMBAL, and LEMBASE updated with additional options to display authors and affiliated organizations
NEWS 32 JUN 30 STN on the Web enhanced with new STN AnaVist Assistant and BLAST plug-in
NEWS 33 JUN 30 STN AnaVist enhanced with database content from EPFULL

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:55:07 ON 06 JUL 2008

=> FILE REG

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 09:55:21 ON 06 JUL 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 4 JUL 2008 HIGHEST RN 1032821-09-2
DICTIONARY FILE UPDATES: 4 JUL 2008 HIGHEST RN 1032821-09-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

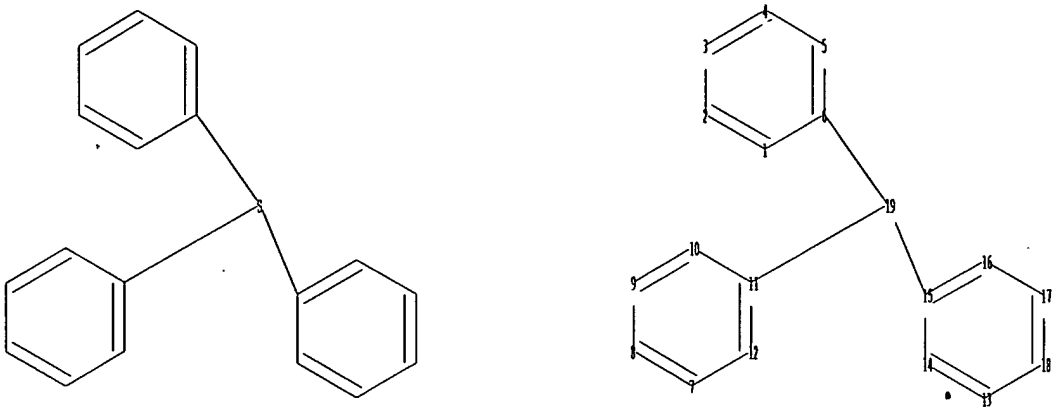
TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\GR00.str

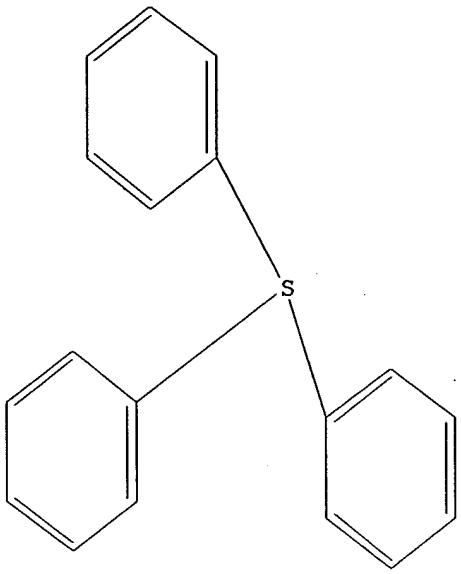


chain nodes :
19
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
chain bonds :
6-19 11-19 15-19
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
14-15 15-16 16-17 17-18
exact/norm bonds :
6-19 11-19 15-19
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
14-15 15-16 16-17 17-18

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS

L1 STRUCTURE UPLOADED

=> D L1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> S L1 FULL
FULL SEARCH INITIATED 09:55:45 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 5309 TO ITERATE

100.0% PROCESSED 5309 ITERATIONS 4378 ANSWERS
SEARCH TIME: 00.00.01

L2 4378 SEA SSS FUL L1

=> FILE CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	178.36	178.57

FILE 'CAPLUS' ENTERED AT 09:55:53 ON 06 JUL 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 6 Jul 2008 VOL 149 ISS 2

FILE LAST UPDATED: 4 Jul 2008 (20080704/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/legal/infopolicy.html

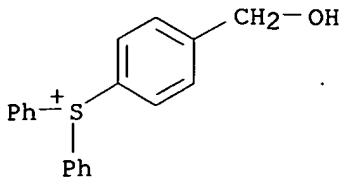
=> S L2
L3 5740 L2

=> S L3 AND GRIGNARD
44887 GRIGNARD
L4 31 L3 AND GRIGNARD

=> S L4 AND SULFOXIDE
40064 SULFOXIDE
L5 18 L4 AND SULFOXIDE

=> D L5 IBIB ABS HITSTR 1-18

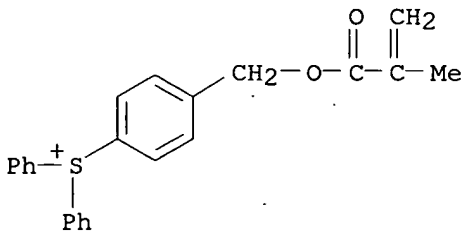
L5 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:214891 CAPLUS
DOCUMENT NUMBER: 145:198689
TITLE: Synthesis of reactive chemical additives for functional nanoimprinted polymer film
AUTHOR(S): Koylu, Damla; Jhaveri, Sarav B.; Carter, Kenneth R.
CORPORATE SOURCE: Polymer Science and Engineering Department, Conte Center for Polymer Research, University of Massachusetts - Amherst, Amherst, MA, 01003, USA
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2006), 47(1), 548
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB Synthesized triphenylsulfonium salts were used for incorporation as additives in functional polymer films, particularly as a monomer and a photoacid generator. Sulfoxide functionality along with methacrylate (monomer) functionality were incorporated in the same mol. to obtain a photoacid monomer mol. 2H-pyran-3,4-dihydro(8CI,9CI) was used in order to protect the alc. group of 4-bromo benzyl alc. Grignard reaction was carried out on the alc. protected bromide followed by addition of phenylsulfoxide. Incorporation of the photoacid monomer within crosslinked films and nanostructures has the ability to produce films that can generate acid upon photolysis.
IT 903515-14-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of reactive chemical additives for functional nanoimprinted polymer film)
RN 903515-14-0 CAPLUS
CN Sulfonium, [4-(hydroxymethyl)phenyl]diphenyl-, bromide (1:1) (CA INDEX NAME)



IT 903515-16-2P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(synthesis of reactive chemical additives for functional nanoimprinted polymer film)
RN 903515-16-2 CAPLUS
CN Sulfonium, [4-[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]phenyl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

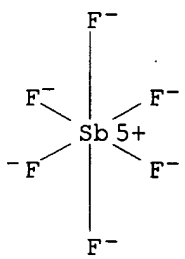
CM 1

CRN 903515-15-1
CMF C23 H21 O2 S



CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:371213 CAPLUS
DOCUMENT NUMBER: 142:411837
TITLE: Process for producing triarylsulfonium salt for resist acid generator and cationic polymerization catalysts
INVENTOR(S): Sumino, Motoshige; Fukasawa, Kazuhito; Imazeki, Shigeaki; Watanabe, Tetsuya
PATENT ASSIGNEE(S): Wako Pure Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005037778	A1	20050428	WO 2004-JP14604		20041004
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
EP 1676835	A1	20060705	EP 2004-792015		20041004
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK					
CN 1871212	A	20061129	CN 2004-80030948		20041004
US 20070083060	A1	20070412	US 2006-576299		20060419
PRIORITY APPLN. INFO.:			JP 2003-360774	A	20031021
			WO 2004-JP14604	W	20041004

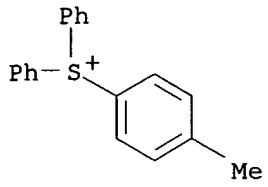
OTHER SOURCE(S): MARPAT 142:411837

AB A triarylsulfonium salt in which only one aromatic ring differs from the others can be efficiently produced. The process, which is for producing a triarylsulfonium salt R(C6H4R1)2S+ A1- (wherein R represents aryl optionally having a substituent different from R1; and A1 represents a strong-acid residue), is characterized by reacting a diaryl sulfoxide (C6H4R1)2SO with an aryl-Grignard reagent RMgX (wherein X represents halogen) in the presence of an activator having a high affinity for oxygen, the activator being used in an amount of 3 to 7.5 equiv to the diaryl sulfoxide, and then reacting the reaction product with either a strong acid represented by the general formula HA1 or a salt of the acid.

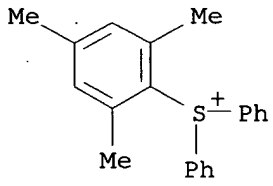
IT 4189-82-6P 347841-68-3P 475598-78-8P
475598-82-4P 753025-61-5P 753025-62-6P
753025-66-0P 753025-68-2P 753025-71-7P
753025-73-9P 753025-75-1P 753025-77-3P
753025-78-4P 753025-80-8P 753025-81-9P
850345-82-3P 850345-83-4P 850345-84-5P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);

USES (Uses)
(process for producing triarylsulfonium salt for resist acid generator and cationic polymerization catalysts)

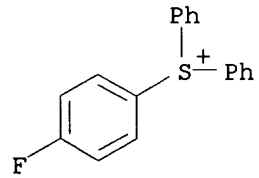
RN 4189-82-6 CAPLUS
CN Sulfonium, (4-methylphenyl)diphenyl-, bromide (9CI) (CA INDEX NAME)



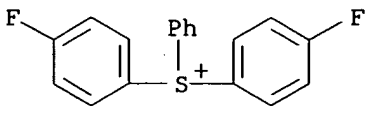
RN 347841-68-3 CAPLUS
CN Sulfonium, diphenyl(2,4,6-trimethylphenyl)-, bromide (1:1) (CA INDEX NAME)



RN 475598-78-8 CAPLUS
CN Sulfonium, (4-fluorophenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)

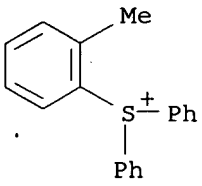


RN 475598-82-4 CAPLUS
CN Sulfonium, bis(4-fluorophenyl)phenyl-, bromide (1:1) (CA INDEX NAME)



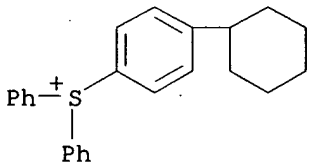
● Br^-

RN 753025-61-5 CAPLUS
CN Sulfonium, (2-methylphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



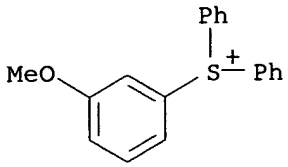
● Br^-

RN 753025-62-6 CAPLUS
CN Sulfonium, (4-cyclohexylphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



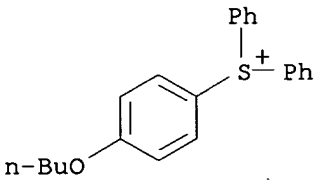
● Br^-

RN 753025-66-0 CAPLUS
CN Sulfonium, (3-methoxyphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



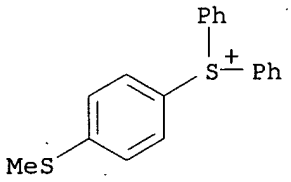
● Br^-

RN 753025-68-2 CAPLUS
CN Sulfonium, (4-butoxyphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



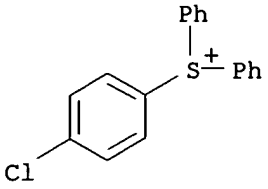
● Br^-

RN 753025-71-7 CAPLUS
CN Sulfonium, [4-(methylthio)phenyl]diphenyl-, bromide (1:1) (CA INDEX NAME)



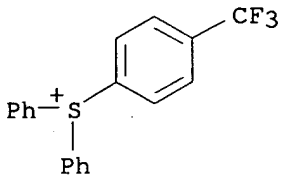
● Br^-

RN 753025-73-9 CAPLUS
CN Sulfonium, (4-chlorophenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



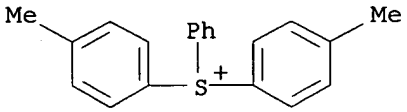
● Br^-

RN 753025-75-1 CAPLUS
CN Sulfonium, diphenyl[4-(trifluoromethyl)phenyl]-, bromide (1:1) (CA INDEX NAME)



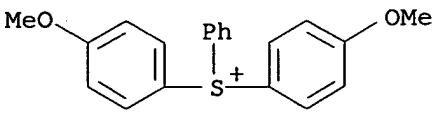
● Br^-

RN 753025-77-3 CAPLUS
CN Sulfonium, bis(4-methylphenyl)phenyl-, bromide (1:1) (CA INDEX NAME)



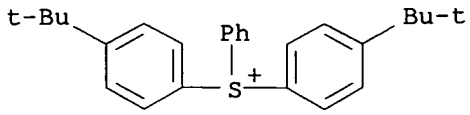
● Br^-

RN 753025-78-4 CAPLUS
CN Sulfonium, bis(4-methoxyphenyl)phenyl-, bromide (1:1) (CA INDEX NAME)



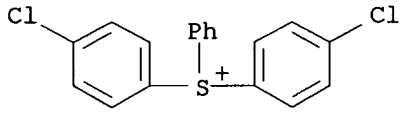
● Br^-

RN 753025-80-8 CAPLUS
CN Sulfonium, bis[4-(1,1-dimethylethyl)phenyl]phenyl-, bromide (1:1) (CA INDEX NAME)



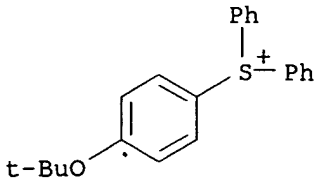
● Br^-

RN 753025-81-9 CAPLUS
CN Sulfonium, bis(4-chlorophenyl)phenyl-, bromide (1:1) (CA INDEX NAME)



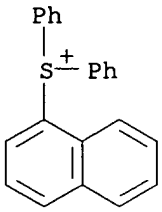
● Br^-

RN 850345-82-3 CAPLUS
CN Sulfonium, [4-(1,1-dimethylethoxy)phenyl]diphenyl-, bromide (1:1) (CA INDEX NAME)



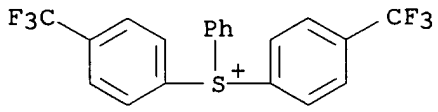
● Br^-

RN 850345-83-4 CAPLUS
CN Sulfonium, 1-naphthalenyldiphenyl-, bromide (1:1) (CA INDEX NAME)



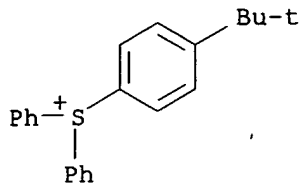
● Br^-

RN 850345-84-5 CAPLUS
CN Sulfonium, phenylbis[4-(trifluoromethyl)phenyl]-, bromide (1:1) (CA INDEX NAME)



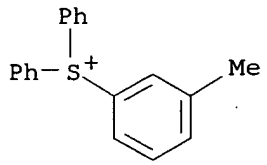
● Br^-

IT 258872-06-9P 347841-66-1P 753025-64-8P
RL: CAT (Catalyst use); IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(process for producing triarylsulfonium salt for resist acid generator and cationic polymerization catalysts)
RN 258872-06-9 CAPLUS
CN Sulfonium, [4-(1,1-dimethylethyl)phenyl]diphenyl-, bromide (1:1) (CA INDEX NAME)



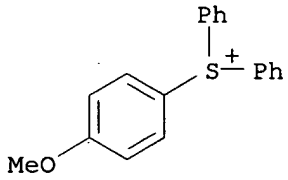
● Br^-

RN 347841-66-1 CAPLUS
CN Sulfonium, (3-methylphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



● Br^-

RN 753025-64-8 CAPLUS
CN Sulfonium, (4-methoxyphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



● Br^-

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

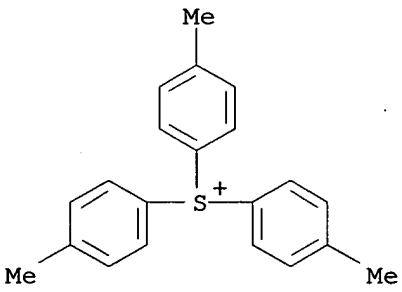
L5 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:573030 CAPLUS
DOCUMENT NUMBER: 141:243157
TITLE: Facile method for the preparation of triarylsulfonium bromides using grignard reagents and chlorotrimethylsilane as an activator
AUTHOR(S): Imazeki, Shigeaki; Sumino, Motoshige; Fukasawa, Kazuhito; Ishihara, Masami; Akiyama, Takahiko

CORPORATE SOURCE: Chemical Products Research Laboratories, Wako Pure Chemical Industries, Ltd., Kawagoe, 350-1101, Japan
SOURCE: Synthesis (2004), (10), 1648-1654
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:243157

AB Triarylsulfonium bromides were synthesized by the reaction of diaryl sulfoxides with aryl Grignard reagents in the presence of TMSCI followed by treatment with HBr aqueous solution Trimethylsilyl chloride as activator is readily available and easier to handle than triethyloxonium tetrafluoroborate(1-) or trifluoromethanesulfonic acid trimethylsilyl ester. Triarylsulfonium bromides bearing three identical substituents on sulfur atom were synthesized by the treatment of di-Me sulfite or thionyl chloride with 5 equiv of Grignard reagent in the presence of TMSCI.

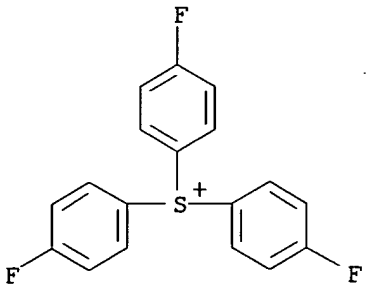
IT 3744-11-4P 54007-94-2P 469912-73-0P
469912-74-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of triarylsulfonium bromides using Grignard reagents and di-Me sulfite or thionyl chloride as reactants and chlorotrimethylsilane as activator)

RN 3744-11-4 CAPLUS
CN Sulfonium, tris(4-methylphenyl)-, bromide (1:1) (CA INDEX NAME)



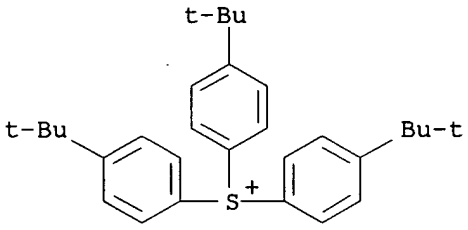
● Br^-

RN 54007-94-2 CAPLUS
CN Sulfonium, tris(4-fluorophenyl)-, bromide (9CI) (CA INDEX NAME)



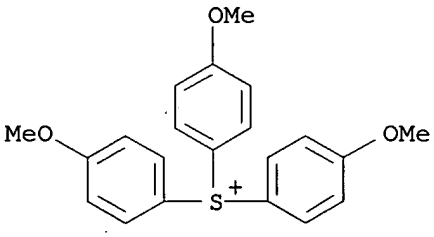
● Br^-

RN 469912-73-0 CAPLUS
CN Sulfonium, tris[4-(1,1-dimethylethyl)phenyl]-, bromide (1:1) (CA INDEX NAME)



● Br^-

RN 469912-74-1 CAPLUS
CN Sulfonium, tris(4-methoxyphenyl)-, bromide (1:1) (CA INDEX NAME)

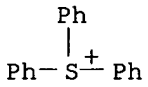


● Br^-

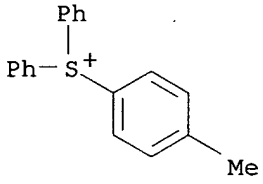
IT 3353-89-7P, Triphenylsulfonium bromide 4189-82-6P
258872-06-9P 347841-66-1P 475598-78-8P

475598-82-4P 753025-61-5P 753025-62-6P
753025-64-8P 753025-66-0P 753025-68-2P
753025-70-6P 753025-71-7P 753025-73-9P
753025-75-1P 753025-77-3P 753025-78-4P
753025-80-8P 753025-81-9P 753025-82-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of triarylsulfonium bromides using Grignard reagents and diaryl sulfoxides as reactants and chlorotrimethylsilane as activator)

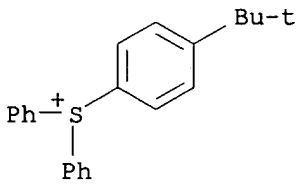
RN 3353-89-7 CAPLUS
CN Sulfonium, triphenyl-, bromide (1:1) (CA INDEX NAME)



RN 4189-82-6 CAPLUS
CN Sulfonium, (4-methylphenyl)diphenyl-, bromide (9CI) (CA INDEX NAME)

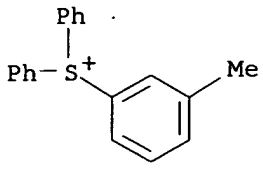


RN 258872-06-9 CAPLUS
CN Sulfonium, [4-(1,1-dimethylethyl)phenyl]diphenyl-, bromide (1:1) (CA INDEX NAME)



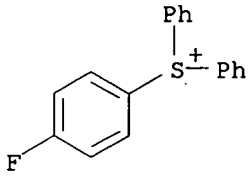
RN 347841-66-1 CAPLUS

CN Sulfonium, (3-methylphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



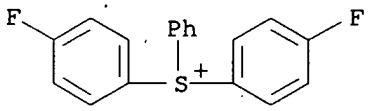
● Br^-

RN 475598-78-8 CAPLUS
CN Sulfonium, (4-fluorophenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



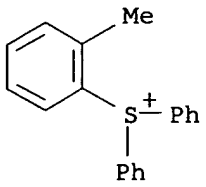
● Br^-

RN 475598-82-4 CAPLUS
CN Sulfonium, bis(4-fluorophenyl)phenyl-, bromide (1:1) (CA INDEX NAME)



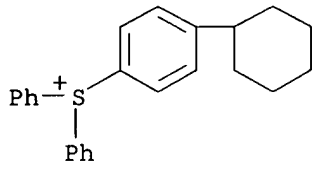
● Br^-

RN 753025-61-5 CAPLUS
CN Sulfonium, (2-methylphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



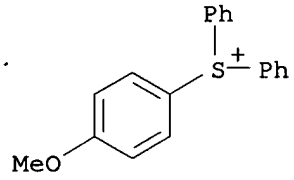
● Br^-

RN 753025-62-6 CAPLUS
CN Sulfonium, (4-cyclohexylphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



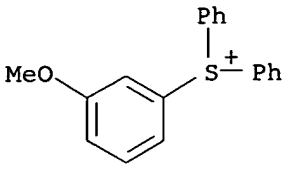
● Br^-

RN 753025-64-8 CAPLUS
CN Sulfonium, (4-methoxyphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



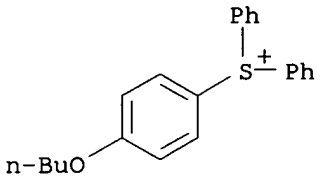
● Br^-

RN 753025-66-0 CAPLUS
CN Sulfonium, (3-methoxyphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



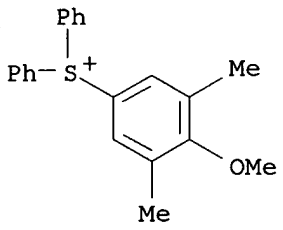
● Br^-

RN 753025-68-2 CAPLUS
CN Sulfonium, (4-butoxyphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



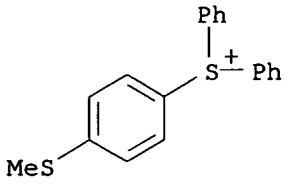
● Br^-

RN 753025-70-6 CAPLUS
CN Sulfonium, (4-methoxy-3,5-dimethylphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



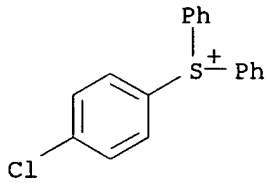
● Br^-

RN 753025-71-7 CAPLUS
CN Sulfonium, [4-(methylthio)phenyl]diphenyl-, bromide (1:1) (CA INDEX NAME)



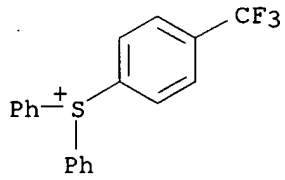
● Br^-

RN 753025-73-9 CAPLUS
CN Sulfonium, (4-chlorophenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



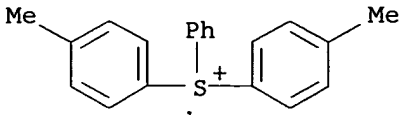
● Br^-

RN 753025-75-1 CAPLUS
CN Sulfonium, diphenyl[4-(trifluoromethyl)phenyl]-, bromide (1:1) (CA INDEX NAME)



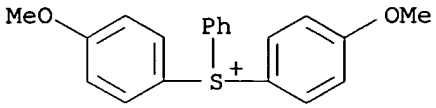
● Br^-

RN 753025-77-3 CAPLUS
CN Sulfonium, bis(4-methylphenyl)phenyl-, bromide (1:1) (CA INDEX NAME)



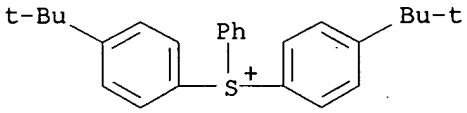
● Br^-

RN 753025-78-4 CAPLUS
CN Sulfonium, bis(4-methoxyphenyl)phenyl-, bromide (1:1) (CA INDEX NAME)



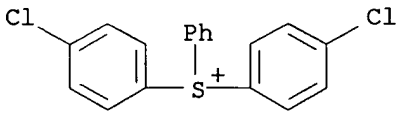
● Br^-

RN 753025-80-8 CAPLUS
CN Sulfonium, bis[4-(1,1-dimethylethyl)phenyl]phenyl-, bromide (1:1) (CA INDEX NAME)



● Br^-

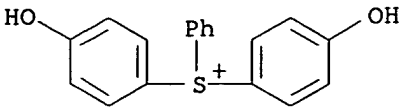
RN 753025-81-9 CAPLUS
CN Sulfonium, bis(4-chlorophenyl)phenyl-, bromide (1:1) (CA INDEX NAME)



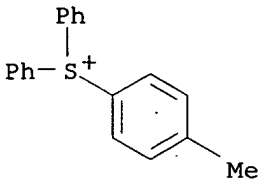
● Br^-

RN 753025-82-0 CAPLUS

CN Sulfonium, bis(4-hydroxyphenyl)phenyl-, bromide (1:1) (CA INDEX NAME)



IT 3744-09-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of triphenylsulfonium iodide using Grignard reagent and di-Ph sulfoxide as reactants and iodotrimethylsilane as activator)
RN 3744-09-0 CAPLUS
CN Sulfonium, (4-methylphenyl)diphenyl-, iodide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:565200 CAPLUS
DOCUMENT NUMBER: 141:123468
TITLE: Preparation of fluoroarylsulfonium photoacid generators for holographic recording media
INVENTOR(S): Kolb, Eric S.; Cetin, Erdem A.; Hutchinson, Kirk D.; Minns, Richard A.
PATENT ASSIGNEE(S): Aprilis, Inc., USA
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

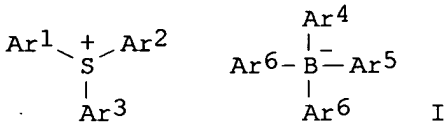
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058699	A2	20040715	WO 2003-US41175	20031222
WO 2004058699	A3	20040910		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

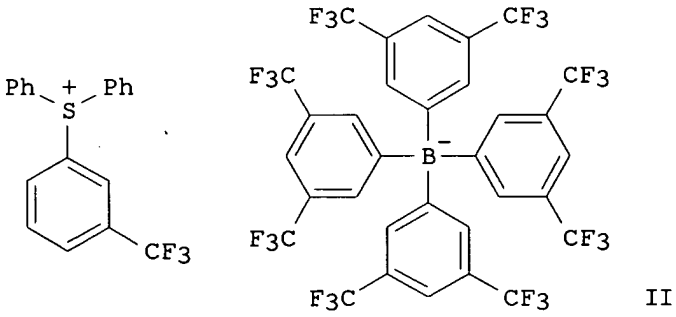
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,
NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003303482	A1	20040722	AU 2003-303482	20031222
EP 1583740	A2	20051012	EP 2003-814368	20031222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 20050059543	A1	20050317	US 2004-945151	20040920
PRIORITY APPLN. INFO.:			US 2002-436521P	P 20021223
			WO 2003-US41175	W 20031222

OTHER SOURCE(S): MARPAT 141:123468
GI



I



II

AB The present invention discloses a new class of triarylsulfonium salt photoacid generators (PAGs) I (Ar1 = aryl substituted with 1 or more fluoroalkyl or F groups; Ar2-Ar7 = independently substituted or unsubstituted aryl), which are thermally stable and can be activated by long wavelength UV or visible light. The sulfonium PAGs of the present invention are addnl. soluble in monomers that can be polymerized by cationic polymerization chemical, and mixts. of said sulfonium PAGs and monomers can be stored for long periods of time without undergoing polymerization Furthermore, typical holog. recording media comprising one of these sulfonium PAGs, polymerizable monomer(s), a sensitizing dye, and a binder can be stored for long periods of time without exhibiting significant loss of recording sensitivity. Preferred sulfonium PAGs of the present invention are sulfonium PAGs substituted with one or more fluoro or fluoroalkyl groups.

Thus, treatment of di-Ph sulfoxide with trimethylsilyl trifluoromethanesulfonate, followed by a Grignard prepared from 3-bromobenzotrifluoride gave triarylsulfonium salt II after anion exchange with sodium tetrakis[3,5-bis(trifluoromethyl)phenyl]borate. Formulations containing II and related triarylsulfonium salts were tested for broadband and green sensitization by DSC. Polymerizable media containing the triarylsulfonium salts are also described, as are holog. recording media containing triarylsulfonium salts.

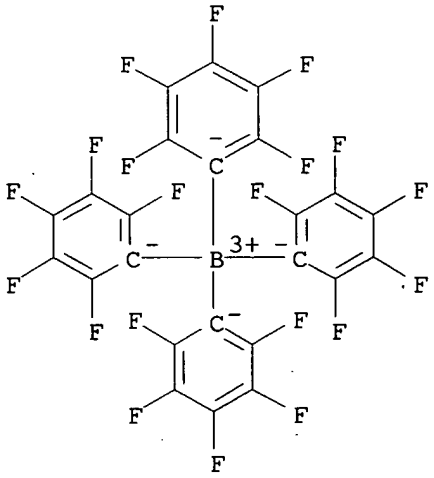
IT 153760-74-8 168153-17-1 723336-52-5
723336-53-6 723336-54-7 723336-56-9
723336-57-0 723336-59-2 723336-61-6
723336-62-7 723336-63-8
RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
(preparation of fluoroarylsulfonium photoacid generators for holog. recording media)

RN 153760-74-8 CAPLUS

CN Sulfonium, triphenyl-, tetrakis(2,3,4,5,6-pentafluorophenyl)borate(1-) (1:1) (CA INDEX NAME)

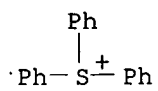
CM 1

CRN 47855-94-7
CMF C24 B F20
CCI CCS



CM 2

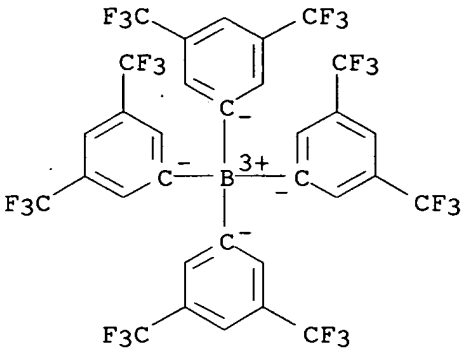
CRN 18393-55-0
CMF C18 H15 S



RN 168153-17-1 CAPLUS
CN Sulfonium, triphenyl-, tetrakis[3,5-bis(trifluoromethyl)phenyl]borate(1-) (9CI) (CA INDEX NAME)

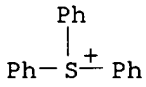
CM 1

CRN 79230-20-9
CMF C32 H12 B F24
CCI CCS



CM 2

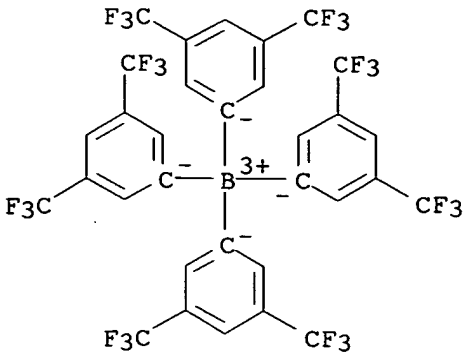
CRN 18393-55-0
CMF C18 H15 S



RN 723336-52-5 CAPLUS
CN Sulfonium, (4-methylphenyl)diphenyl-, tetrakis[3,5-bis(trifluoromethyl)phenyl]borate(1-) (9CI) (CA INDEX NAME)

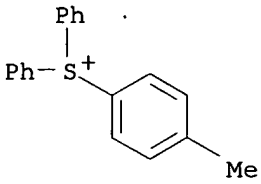
CM 1

CRN 79230-20-9
CMF C32 H12 B F24
CCI CCS



CM 2

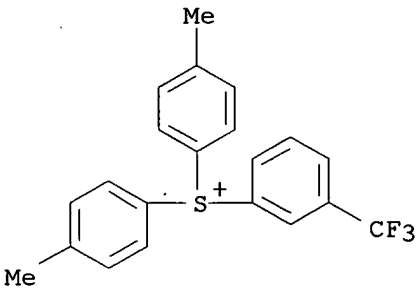
CRN 47045-31-8
CMF C19 H17 S



RN 723336-53-6 CAPLUS
CN Sulfonium, bis(4-methylphenyl)[3-(trifluoromethyl)phenyl]-, tetrakis[3,5-bis(trifluoromethyl)phenyl]borate(1-) (9CI) (CA INDEX NAME)

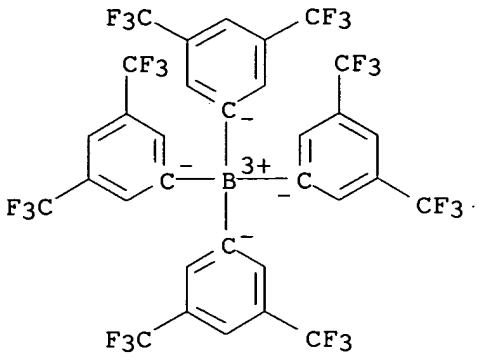
CM 1

CRN 452068-63-2
CMF C21 H18 F3 S



CM 2

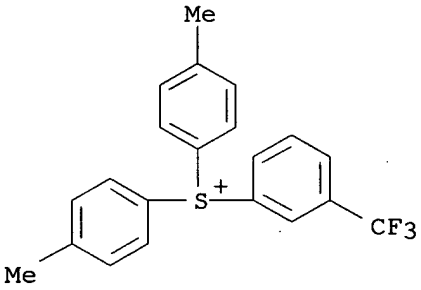
CRN 79230-20-9
CMF C32 H12 B F24
CCI CCS



RN 723336-54-7 CAPLUS
CN Sulfonium, bis(4-methylphenyl)[3-(trifluoromethyl)phenyl]-, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

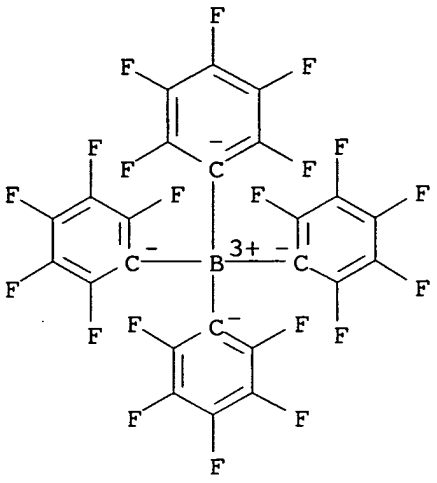
CM 1

CRN 452068-63-2
CMF C21 H18 F3 S



CM 2

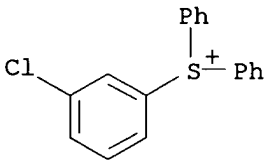
CRN 47855-94-7
CMF C24 B F20
CCI CCS



RN 723336-56-9 CAPLUS
CN Sulfonium, (3-chlorophenyl)diphenyl-, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

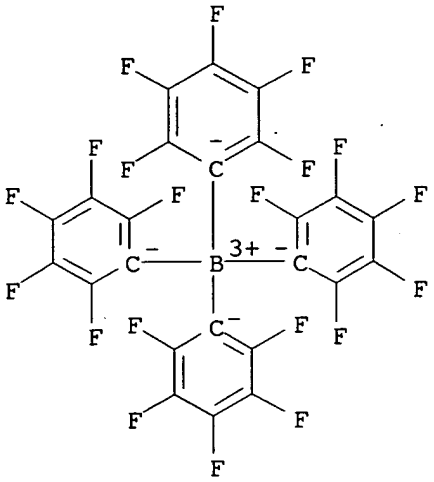
CM 1

CRN 723336-55-8
CMF C18 H14 Cl S



CM 2

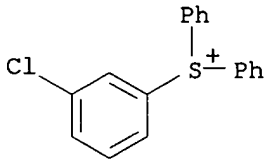
CRN 47855-94-7
CMF C24 B F20
CCI CCS



RN 723336-57-0 CAPLUS
CN Sulfonium, (3-chlorophenyl)diphenyl-, tetrakis[3,5-bis(trifluoromethyl)phenyl]borate(1-) (9CI) (CA INDEX NAME)

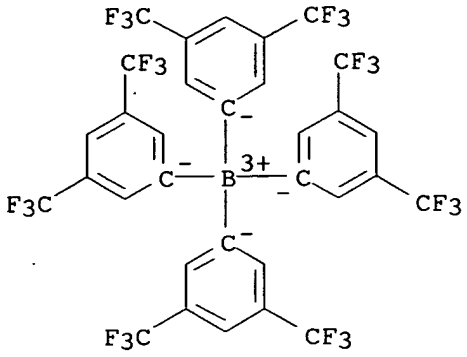
CM 1

CRN 723336-55-8
CMF C18 H14 Cl S



CM 2

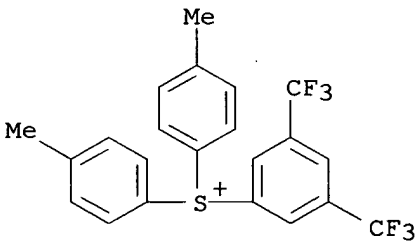
CRN 79230-20-9
CMF C32 H12 B F24
CCI CCS



RN 723336-59-2 CAPLUS
CN Sulfonium, [3,5-bis(trifluoromethyl)phenyl]bis(4-methylphenyl)-, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

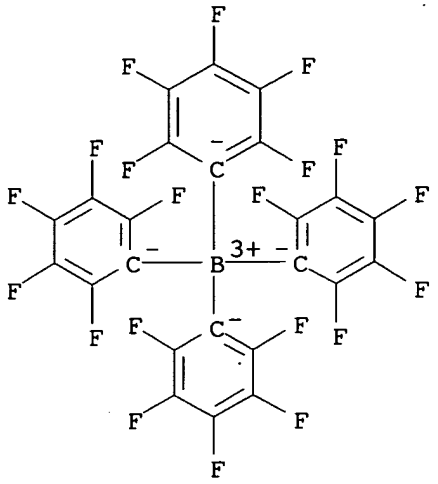
CM 1

CRN 723336-58-1
CMF C22 H17 F6 S



CM 2

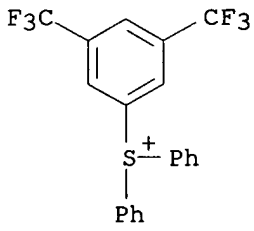
CRN 47855-94-7
CMF C24 B F20
CCI CCS



RN 723336-61-6 CAPLUS
CN Sulfonium, [3,5-bis(trifluoromethyl)phenyl]diphenyl-, tetrakis[3,5-bis(trifluoromethyl)phenyl]borate(1-) (9CI) (CA INDEX NAME)

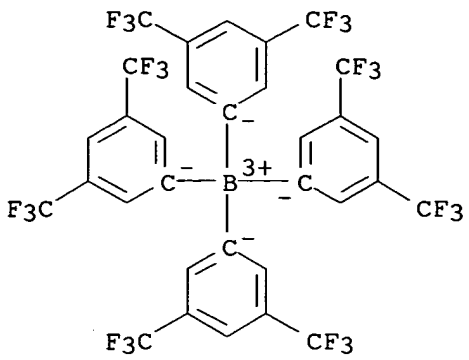
CM 1

CRN 723336-60-5
CMF C20 H13 F6 S



CM 2

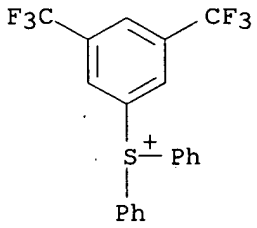
CRN 79230-20-9
CMF C32 H12 B F24
CCI CCS



RN 723336-62-7 CAPLUS
CN Sulfonium, [3,5-bis(trifluoromethyl)phenyl]diphenyl-, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

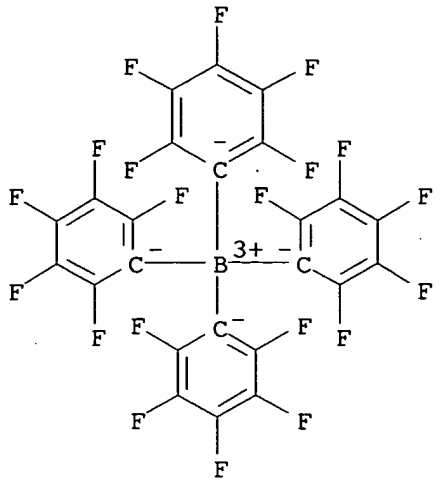
CM 1

CRN 723336-60-5
CMF C20 H13 F6 S



CM 2

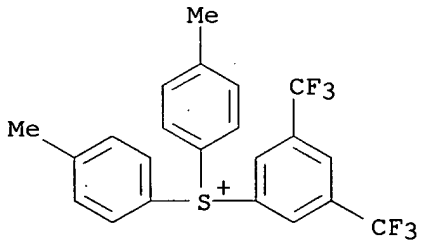
CRN 47855-94-7
CMF C24 B F20
CCI CCS



RN 723336-63-8 CAPLUS
CN Sulfonium, [3,5-bis(trifluoromethyl)phenyl]bis(4-methylphenyl)-, tetrakis[3,5-bis(trifluoromethyl)phenyl]borate(1-) (9CI) (CA INDEX NAME)

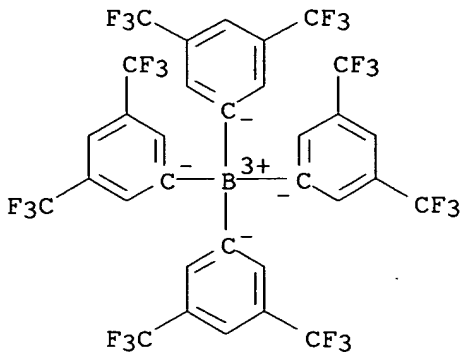
CM 1

CRN 723336-58-1
CMF C22 H17 F6 S



CM 2

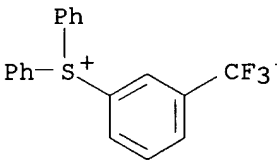
CRN 79230-20-9
CMF C32 H12 B F24
CCI CCS



IT 723336-50-3P 723336-51-4P
RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(preparation of fluoroarylsulfonium photoacid generators for holog. recording media)
RN 723336-50-3 CAPLUS
CN Sulfonium, diphenyl[3-(trifluoromethyl)phenyl]-, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

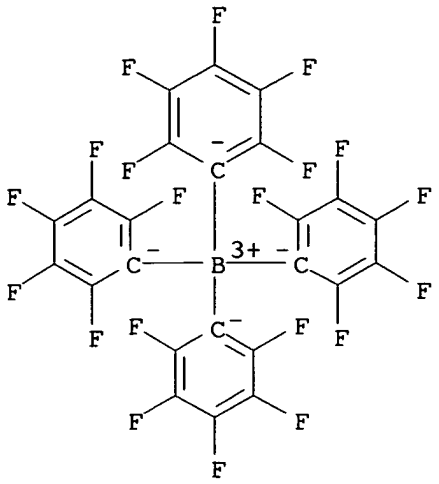
CM 1

CRN 723336-48-9
CMF C19 H14 F3 S



CM 2

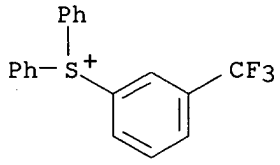
CRN 47855-94-7
CMF C24 B F20
CCI CCS



RN 723336-51-4 CAPLUS
CN Sulfonium, diphenyl[3-(trifluoromethyl)phenyl]-, tetrakis[3,5-bis(trifluoromethyl)phenyl]borate(1-) (9CI) (CA INDEX NAME)

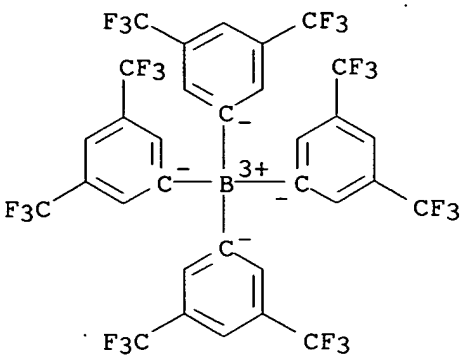
CM 1

CRN 723336-48-9
CMF C19 H14 F3 S



CM 2

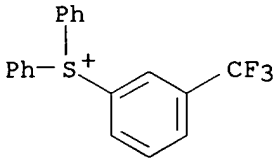
CRN 79230-20-9
CMF C32 H12 B F24
CCI CCS



IT 723336-49-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of fluoroarylsulfonium photoacid generators for holog. recording media)
RN 723336-49-0 CAPLUS
CN Sulfonium, diphenyl[3-(trifluoromethyl)phenyl]-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

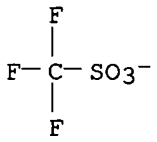
CM 1

CRN 723336-48-9
CMF C19 H14 F3 S



CM 2

CRN 37181-39-8
CMF C F3 O3 S



L5 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:888702 CAPLUS
DOCUMENT NUMBER: 137:392177
TITLE: Fluorinated triphenylsulfonium salts for acid generators for resists or cationic photopolymn.

initiators

INVENTOR(S): Ishihara, Masami; Sumino, Motoshige; Fukasawa, Kazuhito; Maesawa, Tsuneaki; Imazeki, Shigeaki; Sakuma, Yumi

PATENT ASSIGNEE(S): Wako Pure Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 78 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002092559	A1	20021121	WO 2002-JP4456	20020508
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002309033	A1	20021125	AU 2002-309033	20020508

PRIORITY APPLN. INFO.:

JP 2001-141048	A	20010511
JP 2001-141049	A	20010511
WO 2002-JP4456	W	20020508

OTHER SOURCE(S): MARPAT 137:392177

AB The title compds. have structures R1R22S+A1 and R33S+A2, where R1 is a monofluorophenyl optionally containing a substituent other than F, R2 is independently Ph optionally containing a substituent other than F, A1 is an anion resulting from a sulfonic or carboxylic acid having a F atom, R3 is independently fluorinated Ph optionally containing a substituent other than F, and A2 is an anion resulting from a sulfonic acid. Thus, 4-fluorophenyldiphenylsulfonium nonafluorobutanesulfonate was prepared and mixed in a resist composition containing tert-Bu acrylate-p-hydroxystyrene-styrene copolymer.

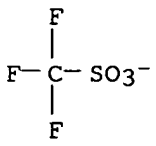
IT 330812-90-3P 330812-91-4P 475598-74-4P 475598-75-5P 475598-76-6P 475598-77-7P 475598-80-2P 475598-81-3P 475598-83-5P 475598-84-6P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(fluorinated triphenylsulfonium salts for acid generators for resists and cationic photopolymn. initiators)

RN 330812-90-3 CAPLUS

CN Sulfonium, bis(4-fluorophenyl)phenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

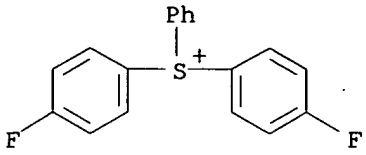
CM 1

CRN 37181-39-8
CMF C F3 O3 S



CM 2

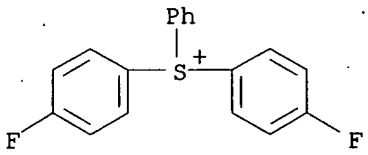
CRN 29248-00-8
CMF C18 H13 F2 S



RN 330812-91-4 CAPLUS
CN Sulfonium, bis(4-fluorophenyl)phenyl-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

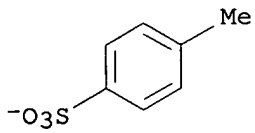
CM 1

CRN 29248-00-8
CMF C18 H13 F2 S



CM 2

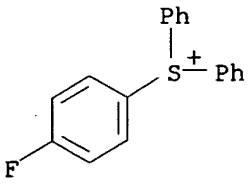
CRN 16722-51-3
CMF C7 H7 O3 S



RN 475598-74-4 CAPLUS
CN Sulfonium, (4-fluorophenyl)diphenyl-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 70084-25-2
CMF C18 H14 F S



CM 2

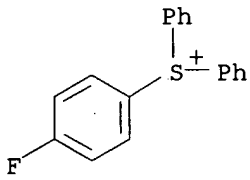
CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

RN 475598-75-5 CAPLUS
CN Sulfonium, (4-fluorophenyl)diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 70084-25-2
CMF C18 H14 F S



CM 2

CRN 45298-90-6
CMF C8 F17 O3 S

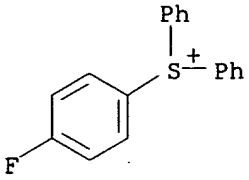
$^{-}O_3S-(CF_2)_7-CF_3$

RN 475598-76-6 CAPLUS
CN Sulfonium, (4-fluorophenyl)diphenyl-, 2,3,4,5,6-pentafluorobenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

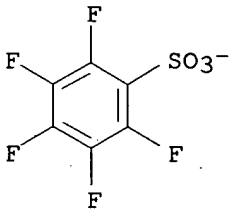
CRN 70084-25-2

CMF C18 H14 F S



CM 2

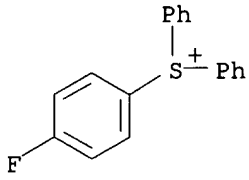
CRN 46377-88-2
CMF C6 F5 O3 S



RN 475598-77-7 CAPLUS
CN Sulfonium, (4-fluorophenyl)diphenyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanoate (1:1) (CA INDEX NAME)

CM 1

CRN 70084-25-2
CMF C18 H14 F S



CM 2

CRN 45285-51-6
CMF C8 F15 O2

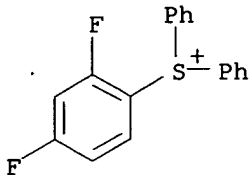
$F_3C-(CF_2)_6-CO_2^-$

RN 475598-80-2 CAPLUS
CN Sulfonium, (2,4-difluorophenyl)diphenyl-, 1,1,1-trifluoromethanesulfonate

(1:1) (CA INDEX NAME)

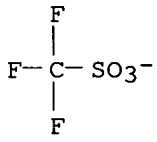
CM 1

CRN 475598-79-9
CMF C18 H13 F2 S



CM 2

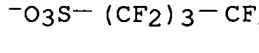
CRN 37181-39-8
CMF C F3 O3 S



RN 475598-81-3 CAPLUS
CN Sulfonium, bis(4-fluorophenyl)phenyl-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) (CA INDEX NAME)

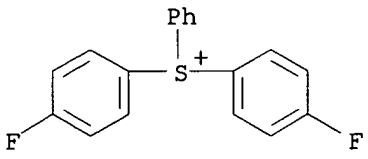
CM 1

CRN 45187-15-3
CMF C4 F9 O3 S



CM 2

CRN 29248-00-8
CMF C18 H13 F2 S

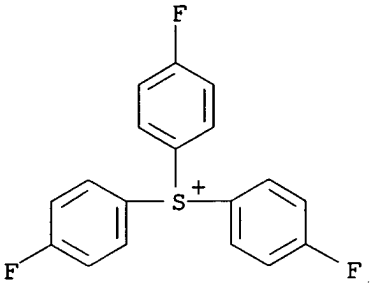


RN 475598-83-5 CAPLUS

CN Sulfonium, tris(4-fluorophenyl)-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

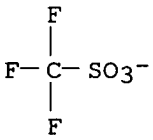
CM 1

CRN 47197-44-4
CMF C18 H12 F3 S



CM 2

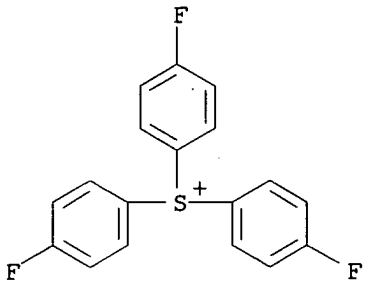
CRN 37181-39-8
CMF C F3 O3 S



RN 475598-84-6 CAPLUS
CN Sulfonium, tris(4-fluorophenyl)-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 47197-44-4
CMF C18 H12 F3 S



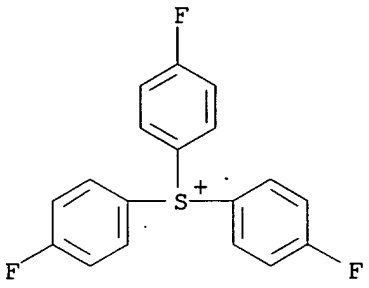
CM 2

CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

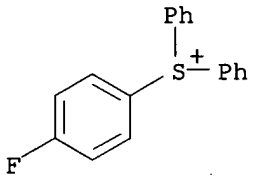
IT 54007-94-2P 475598-78-8P 475598-82-4P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(fluorinated triphenylsulfonium salts for acid generators for resists and cationic photopolymn. initiators)

RN 54007-94-2 CAPLUS
CN Sulfonium, tris(4-fluorophenyl)-, bromide (9CI) (CA INDEX NAME)



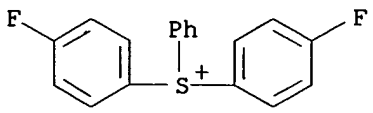
● Br^-

RN 475598-78-8 CAPLUS
CN Sulfonium, (4-fluorophenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)



● Br^-

RN 475598-82-4 CAPLUS
CN Sulfonium, bis(4-fluorophenyl)phenyl-, bromide (1:1) (CA INDEX NAME)



● Br^-

L5 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:50072 CAPLUS
DOCUMENT NUMBER: 132:93801
TITLE: Sulfonium salt and its manufacturing method
INVENTOR(S): Park, Joo-Hyeon; Seo, Dong-Chul; Park, Sun-Ju; Kim, Seong-Ju
PATENT ASSIGNEE(S): Korea Kumho Petrochemical Co. Ltd., S. Korea
SOURCE: Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 972761	A1	20000119	EP 1999-305552	19990713
EP 972761	B1	20011212		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
KR 2000008811	A	20000215	KR 1998-28833	19980716
US 6111143	A	20000829	US 1998-140955	19980827
JP 2992517	B2	19991220	JP 1998-266991	19980921
JP 2000034274	A	20000202		
JP 2000044535	A	20000215	JP 1999-234035	19980921
TW 482754	B	20020411	TW 1999-88110428	19990622
AT 210641	T	20011215	AT 1999-305552	19990713
PT 972761	T	20020628	PT 1999-305552	19990713
ES 2169938	T3	20020716	ES 1999-305552	19990713
CN 1243122	A	20000202	CN 1999-110490	19990716

PRIORITY APPLN. INFO.:
KR 1998-28833 A 19980716
EP 1998-307103 A 19980903
JP 1998-266991 A3 19980921

OTHER SOURCE(S): MARPAT 132:93801

AB This invention relates to a sulfonium salt, including its manufacturing method, which is effectively used as a photoacid initiator or radical photoinitiator during polymerization and a photoacid generator, leaving the protection groups of organic compds., especially as an useful photoacid generator of the chemical amplified photoresist employed in semiconductor materials. Since the sulfonium salt of this invention, so prepared via one-step reaction between sulfoxide compound and aromatic compound in the presence of perfluoroalkanesulfonic anhydride, has the advantages in that by overcoming some shortcomings of the prior art to prepare the sulfonium salt via two steps using Grignard reagent, this invention may provide a novel sulfonium salt with higher yield which cannot be achieved

in the prior art and also to prepare even any conventional sulfonium salt having better yield. Ph sulfoxide dissolved in toluene was stirred at room temperature with a slow addition of triflic anhydride and further stirred for 1 h. Then, the sulfonium salt contained in the reacting mixture was extracted with distilled water and further, toluene used as a solvent and reactant was removed. The sulfonium salt, so extracted with distilled water, was re-extracted with dichloromethane into organic layer and then, the extraction solvent dichloromethane was removed under pressure. After the solvent was completely removed, an oil phase with larger viscosity was obtained. The oil phase, so formed, was completely dissolved in dichloromethane and with a slow addition of ether, a white precipitate was obtained. The white precipitate was filtered and dried by vacuum oven to obtain the sulfonium salt in a white solid.

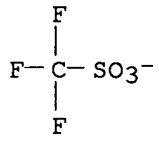
IT 66003-78-9P, Triphenylsulfonium triflate 81416-37-7P
111281-12-0P 116808-67-4P 116808-69-6P
145612-66-4P 154093-57-9P 180801-55-2P
240482-96-6P 255056-42-9P 255056-43-0P
255056-44-1P 255056-46-3P 255056-48-5P
255056-50-9P 255056-53-2P
RL: IMF (Industrial manufacture); PREP (Preparation)
(sulfonium salt and its manufacturing method)

RN 66003-78-9 CAPLUS

CN Sulfonium, triphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

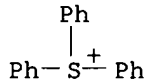
CM 1

CRN 37181-39-8
CMF C F3 O3 S



CM 2

CRN 18393-55-0
CMF C18 H15 S

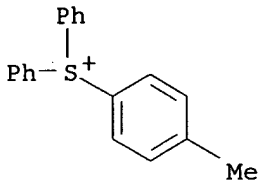


RN 81416-37-7 CAPLUS

CN Sulfonium, (4-methylphenyl)diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

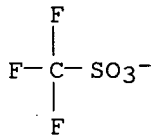
CM 1

CRN 47045-31-8
CMF C19 H17 S



CM 2

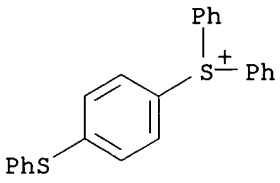
CRN 37181-39-8
CMF C F3 O3 S



RN 111281-12-0 CAPLUS
CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

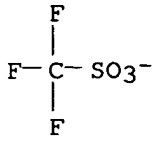
CM 1

CRN 47480-44-4
CMF C24 H19 S2



CM 2

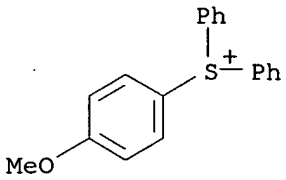
CRN 37181-39-8
CMF C F3 O3 S



RN 116808-67-4 CAPLUS
CN Sulfonium, (4-methoxyphenyl)diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

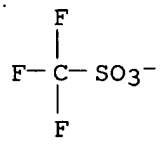
CM 1

CRN 70084-23-0
CMF C19 H17 O S



CM 2

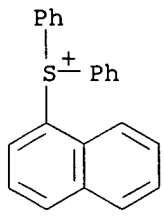
CRN 37181-39-8
CMF C F3 O3 S



RN 116808-69-6 CAPLUS
CN Sulfonium, 1-naphthalenyldiphenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

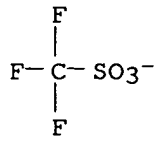
CM 1

CRN 116808-68-5
CMF C22 H17 S



CM 2

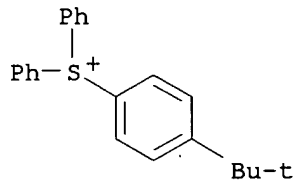
CRN 37181-39-8
CMF C F3 O3 S



RN 145612-66-4 CAPLUS
CN Sulfonium, [4-(1,1-dimethylethyl)phenyl]diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

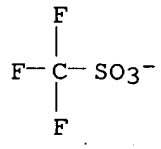
CM 1

CRN 66482-54-0
CMF C22 H23 S



CM 2

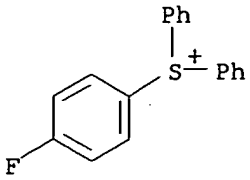
CRN 37181-39-8
CMF C F3 O3 S



RN 154093-57-9 CAPLUS
CN Sulfonium, (4-fluorophenyl)diphenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

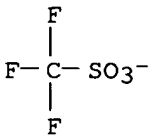
CM 1

CRN 70084-25-2
CMF C18 H14 F S



CM 2

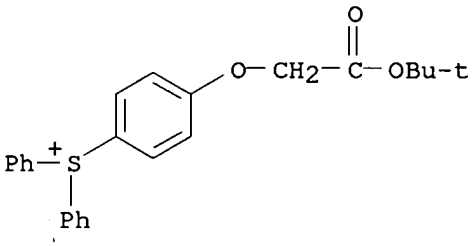
CRN 37181-39-8
CMF C F3 O3 S



RN 180801-55-2 CAPLUS
CN Sulfonium, [4-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

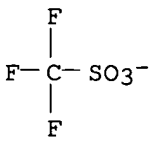
CM 1

CRN 180801-54-1
CMF C24 H25 O3 S



CM 2

CRN 37181-39-8
CMF C F3 O3 S

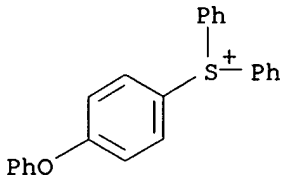


RN 240482-96-6 CAPLUS

CN Sulfonium, (4-phenoxyphenyl)diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

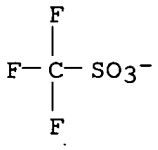
CM 1

CRN 82617-07-0
CMF C24 H19 O S



CM 2

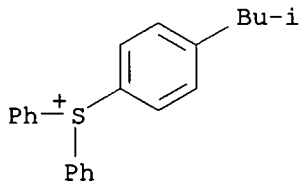
CRN 37181-39-8
CMF C F3 O3 S



RN 255056-42-9 CAPLUS
CN Sulfonium, [4-(2-methylpropyl)phenyl]diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

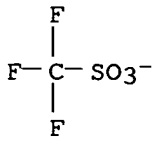
CM 1

CRN 255056-41-8
CMF C22 H23 S



CM 2

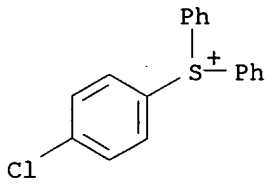
CRN 37181-39-8
CMF C F3 O3 S



RN 255056-43-0 CAPLUS
CN Sulfonium, (4-chlorophenyl)diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

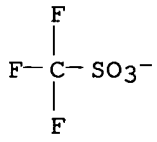
CM 1

CRN 47045-32-9
CMF C18 H14 Cl S



CM 2

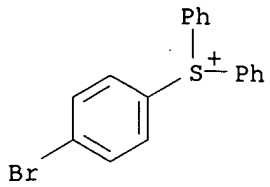
CRN 37181-39-8
CMF C F3 O3 S



RN 255056-44-1 CAPLUS
CN Sulfonium, (4-bromophenyl)diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

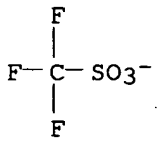
CM 1

CRN 70244-60-9
CMF C18 H14 Br S



CM 2

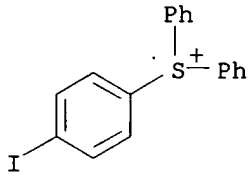
CRN 37181-39-8
CMF C F3 O3 S



RN 255056-46-3 CAPLUS
CN Sulfonium, (4-iodophenyl)diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

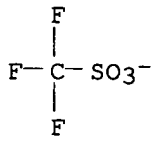
CM 1

CRN 255056-45-2
CMF C18 H14 I S



CM 2

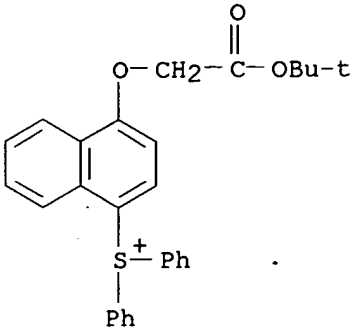
CRN 37181-39-8
CMF C F3 O3 S



RN 255056-48-5 CAPLUS
CN Sulfonium, [4-[2-(1,1-dimethylethoxy)-2-oxoethoxy]-1-naphthalenyl]diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

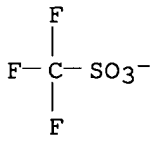
CM 1

CRN 255056-47-4
CMF C28 H27 O3 S



CM 2

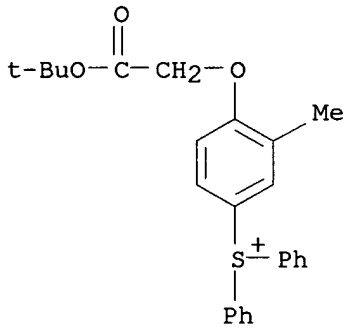
CRN 37181-39-8
CMF C F3 O3 S



RN 255056-50-9 CAPLUS
CN Sulfonium, [4-[2-(1,1-dimethylethoxy)-2-oxoethoxy]-3-methylphenyl]diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

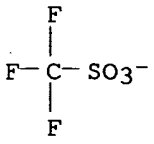
CM 1

CRN 255056-49-6
CMF C25 H27 O3 S



CM 2

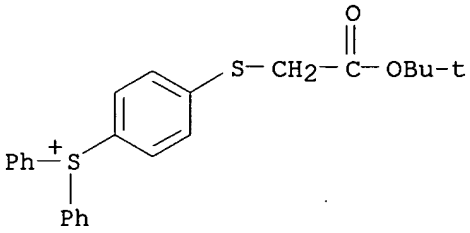
CRN 37181-39-8
CMF C F3 O3 S



RN 255056-53-2 CAPLUS
CN Sulfonium, [4-[[2-(1,1-dimethylethoxy)-2-oxoethyl]thio]phenyl]diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

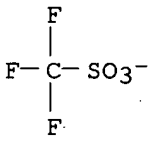
CM 1

CRN 255056-52-1
CMF C24 H25 O2 S2



CM 2

CRN 37181-39-8
CMF C F3 O3 S



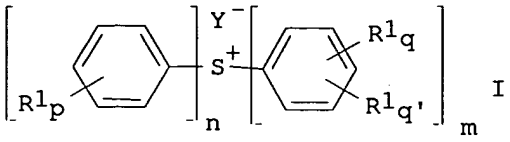
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:35993 CAPLUS
DOCUMENT NUMBER: 128:134385
ORIGINAL REFERENCE NO.: 128:26277a,26280a
TITLE: Sulfonium salts and chemically-amplified positive-working resists containing them
INVENTOR(S): Ozawa, Yoichi; Watanabe, Satoshi; Kukemura, Katsunari; Nakura, Shigehiro; Tanaka, Hiroyoshi; Kawai, Yoshio
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan; Nippon Telegraph and Telephone Corp.
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10007650	A	19980113	JP 1996-307363	19961101
JP 3918881	B2	20070523		
TW 436663	B	20010528	TW 1996-85113247	19961030
US 5824824	A	19981020	US 1996-742323	19961101
PRIORITY APPLN. INFO.:			JP 1995-309849 A	19951102

OTHER SOURCE(S): MARPAT 128:134385
GI

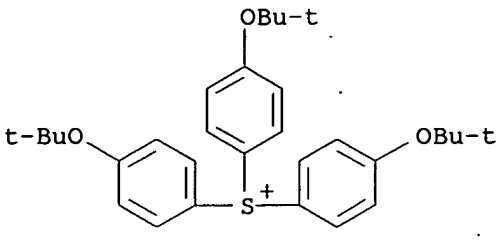


I

AB The sulfonium salts are represented by a Markush structure I (R1 = alkyl, alkoxy, alkylamino; OR2 = acid-instable group; Y = C2-20 linear or branched alkyl, cycloalkyl, arylsulfonate; if Y = alkyl, then ≥1 H bound to non-α-C is substituted with electron-withdrawing group such as F, NO2; if Y = arylsulfonate, then ≥1 H on the ring is substituted with electron-withdrawing group; n = 0-2; m = 1-3; q' = 1-5; p = 0-5; q = 0-4; q + q' = 1-5). The resists contain (A) an organic solvent, (B) an alkaline-soluble resin, (C) I, (D) a photoacid generator, and optionally (E) a dissoln. inhibitor containing acid-unstable group. Use of I prevents T-top formation in patterning even when time between exposure and post-exposure bake is long, and the resists are useful for microlithog.

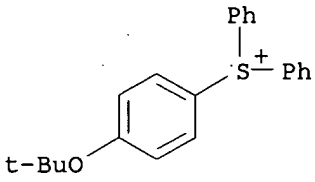
IT 199733-53-4P 199733-54-5P
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of sulfonium salts as photoacid generator for chemical-amplified
pos.-working resists)

RN 199733-53-4 CAPLUS
CN Sulfonium, tris[4-(1,1-dimethylethoxy)phenyl]-, chloride (9CI) (CA INDEX NAME)



● Cl^-

RN 199733-54-5 CAPLUS
CN Sulfonium, [4-(1,1-dimethylethoxy)phenyl]diphenyl-, chloride (1:1) (CA INDEX NAME)

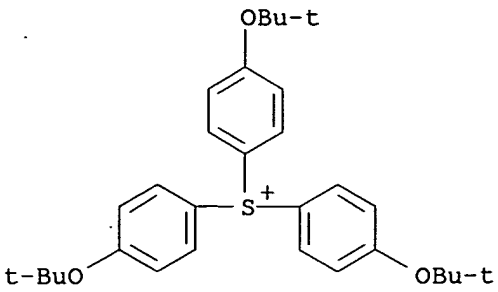


● Cl^-

IT 157089-24-2P 157089-26-4P 160659-39-2P
170632-61-8P 186769-06-2P 186889-18-9P
186889-30-5P 202068-47-1P 202068-48-2P
202068-49-3P 202068-50-6P 202068-51-7P
202068-52-8P 202068-53-9P 202068-54-0P
202068-55-1P 202068-57-3P 202068-58-4P
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of sulfonium salts as photoacid generator for chemical-amplified
pos.-working resists)
RN 157089-24-2 CAPLUS
CN Sulfonium, tris[4-(1,1-dimethylethoxy)phenyl]-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

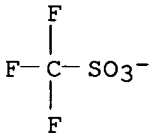
CM 1

CRN 137455-55-1
CMF C30 H39 O3 S



CM 2

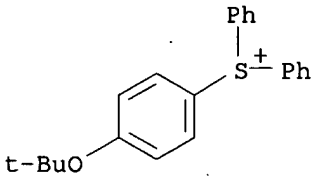
CRN 37181-39-8
CMF C F3 O3 S



RN 157089-26-4 CAPLUS
CN Sulfonium, [4-(1,1-dimethylethoxy)phenyl]diphenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

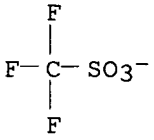
CM 1

CRN 157089-25-3
CMF C22 H23 O S



CM 2

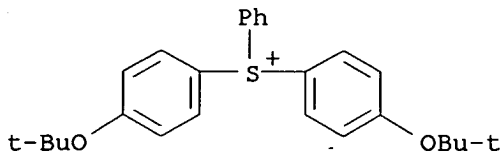
CRN 37181-39-8
CMF C F3 O3 S



RN 160659-39-2 CAPLUS
CN Sulfonium, bis[4-(1,1-dimethylethoxy)phenyl]phenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

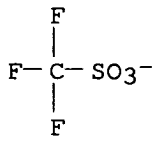
CM 1

CRN 160659-38-1
CMF C26 H31 O2 S



CM 2

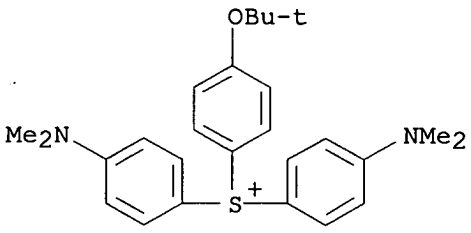
CRN 37181-39-8
CMF C F3 O3 S



RN 170632-61-8 CAPLUS
CN Sulfonium, bis[4-(dimethylamino)phenyl][4-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

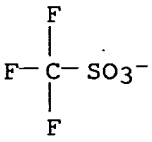
CM 1

CRN 170632-60-7
CMF C26 H33 N2 O S



CM 2

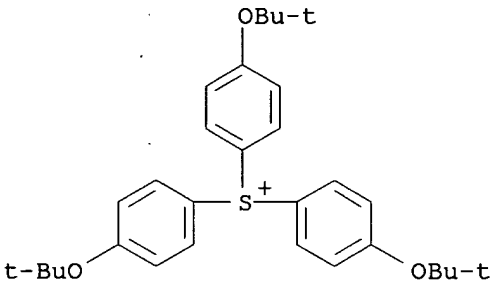
CRN 37181-39-8
CMF C F3 O3 S



RN 186769-06-2 CAPLUS
CN Sulfonium, tris[4-(1,1-dimethylethoxy)phenyl]-, salt with pentafluorobenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

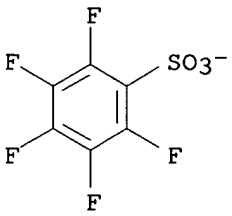
CM 1

CRN 137455-55-1
CMF C30 H39 O3 S



CM 2

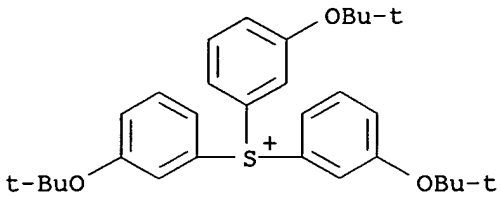
CRN 46377-88-2
CMF C6 F5 O3 S



RN 186889-18-9 CAPLUS
CN Sulfonium, tris[3-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

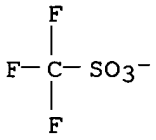
CM 1

CRN 186769-07-3
CMF C30 H39 O3 S



CM 2

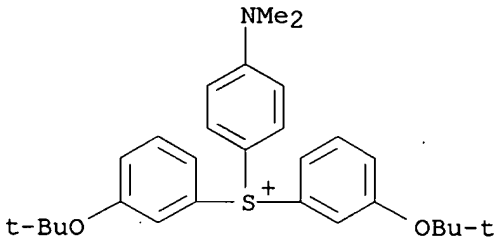
CRN 37181-39-8
CMF C F3 O3 S



RN 186889-30-5 CAPLUS
CN Sulfonium, [4-(dimethylamino)phenyl]bis[3-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

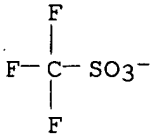
CM 1

CRN 186889-29-2
CMF C28 H36 N O2 S



CM 2

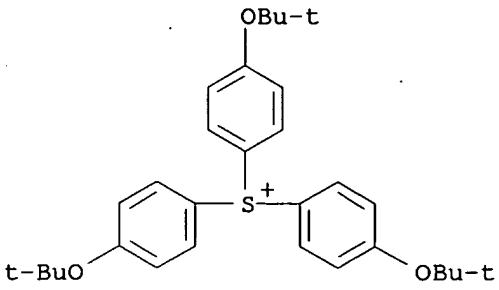
CRN 37181-39-8
CMF C F3 O3 S



RN 202068-47-1 CAPLUS
CN Sulfonium, tris[4-(1,1-dimethylethoxy)phenyl]-, salt with 4-fluorobenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

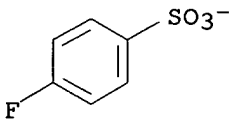
CM 1

CRN 137455-55-1
CMF C30 H39 O3 S



CM 2

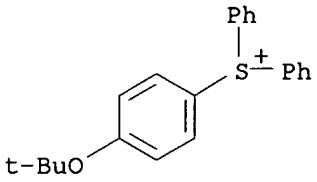
CRN 61657-38-3
CMF C6 H4 F O3 S



RN 202068-48-2 CAPLUS
CN Sulfonium, [4-(1,1-dimethylethoxy)phenyl]diphenyl-, salt with pentafluorobenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

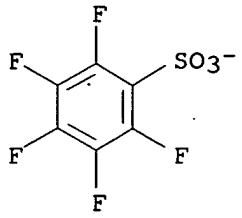
CM 1

CRN 157089-25-3
CMF C22 H23 O S



CM 2

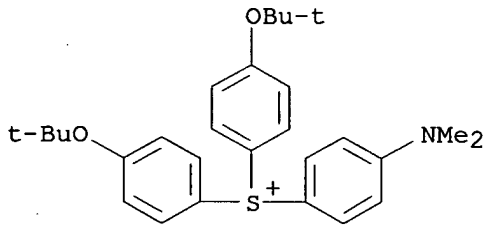
CRN 46377-88-2
CMF C6 F5 O3 S



RN 202068-49-3 CAPLUS
CN Sulfonium, [4-(dimethylamino)phenyl]bis[4-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

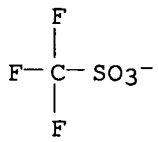
CM 1

CRN 197727-69-8
CMF C28 H36 N O2 S



CM 2

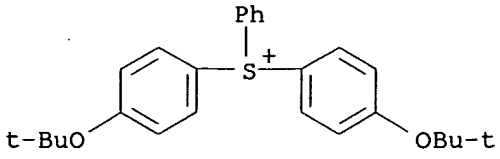
CRN 37181-39-8
CMF C F3 O3 S



RN 202068-50-6 CAPLUS
CN Sulfonium, bis[4-(1,1-dimethylethoxy)phenyl]phenyl-, salt with pentafluorobenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

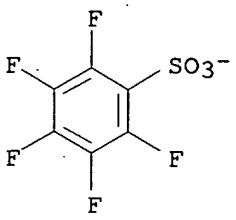
CM 1

CRN 160659-38-1
CMF C26 H31 O2 S



CM 2

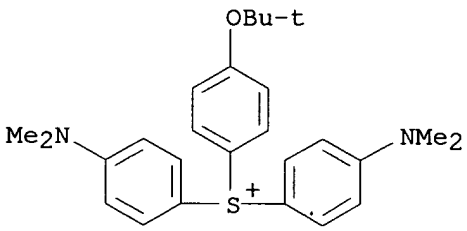
CRN 46377-88-2
CMF C6 F5 O3 S



RN 202068-51-7 CAPLUS
CN Sulfonium, bis[4-(dimethylamino)phenyl][4-(1,1-dimethylethoxy)phenyl]-, salt with pentafluorobenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

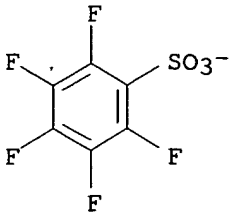
CM 1

CRN 170632-60-7
CMF C26 H33 N2 O S



CM 2

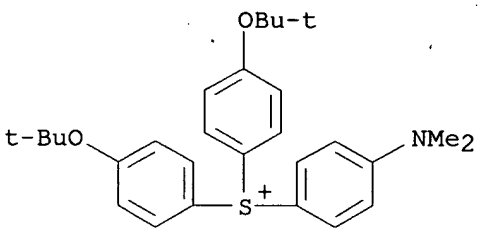
CRN 46377-88-2
CMF C6 F5 O3 S



RN 202068-52-8 CAPLUS
CN Sulfonium, [4-(dimethylamino)phenyl]bis[4-(1,1-dimethylethoxy)phenyl]-, salt with pentafluorobenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

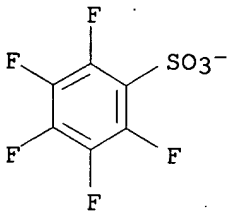
CM 1

CRN 197727-69-8
CMF C28 H36 N O2 S



CM 2

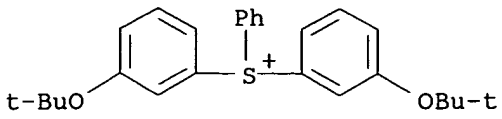
CRN 46377-88-2
CMF C6 F5 O3 S



RN 202068-53-9 CAPLUS
CN Sulfonium, bis[3-(1,1-dimethylethoxy)phenyl]phenyl-, salt with 4-fluorobenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

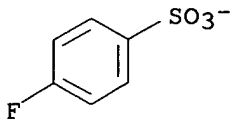
CM 1

CRN 186889-20-3
CMF C26 H31 O2 S



CM 2

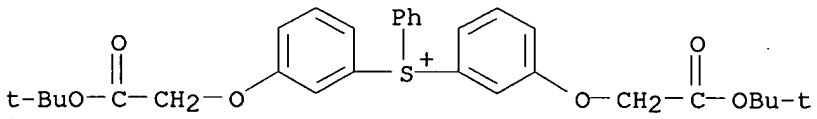
CRN 61657-38-3
CMF C6 H4 F O3 S



RN 202068-54-0 CAPLUS
CN Sulfonium, bis[3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]phenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

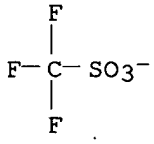
CM 1

CRN 201611-67-8
CMF C30 H35 O6 S



CM 2

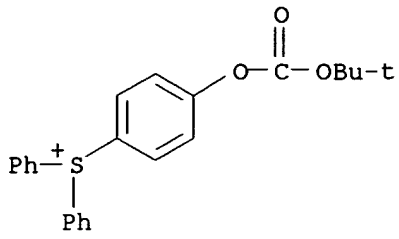
CRN 37181-39-8
CMF C F3 O3 S



RN 202068-55-1 CAPLUS
CN Sulfonium, [4-[[(1,1-dimethylethoxy)carbonyl]oxy]phenyl]diphenyl-, salt with pentafluorobenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

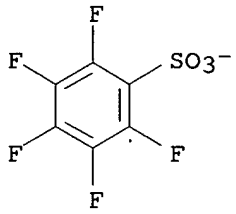
CM 1

CRN 170632-68-5
CMF C23 H23 O3 S



CM 2

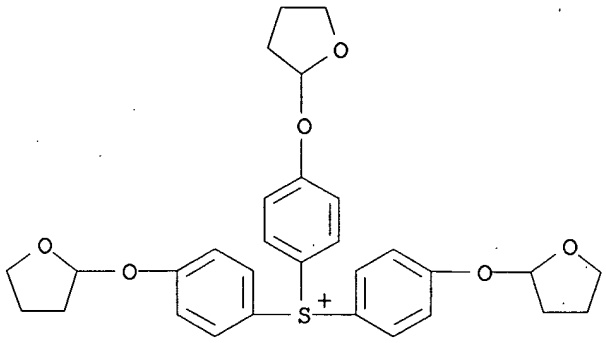
CRN 46377-88-2
CMF C6 F5 O3 S



RN 202068-57-3 CAPLUS
CN Sulfonium, tris[4-[(tetrahydro-2-furanyl)oxy]phenyl]-, salt with pentafluorobenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

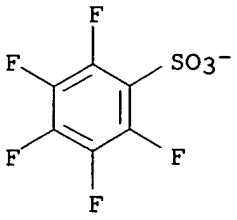
CM 1

CRN 202068-56-2
CMF C30 H33 O6 S



CM 2

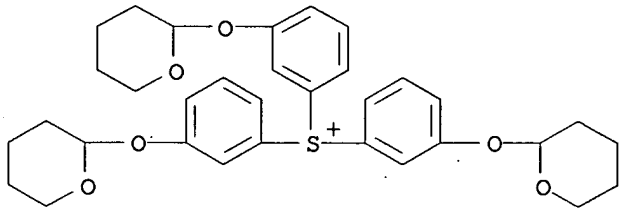
CRN 46377-88-2
CMF C6 F5 O3 S



RN 202068-58-4 CAPLUS
CN Sulfonium, tris[3-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

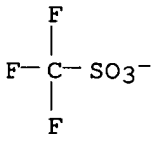
CM 1

CRN 195723-92-3
CMF C33 H39 O6 S



CM 2

CRN 37181-39-8
CMF C F3 O3 S

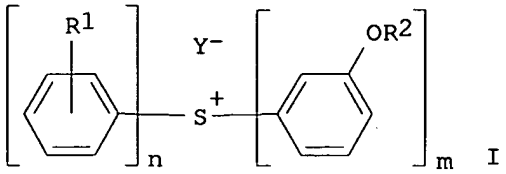


L5 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:230496 CAPLUS
DOCUMENT NUMBER: 126:218586
ORIGINAL REFERENCE NO.: 126:42155a,42158a
TITLE: Chemically-amplified positive-working resist containing sulfonium photoacid generator
INVENTOR(S): Oosawa, Yoichi; Takemura, Katsuya; Watanabe, Satoshi; Ishihara, Toshinobu; Nagura, Shigehiro; Tanaka, Haruyori; Kawai, Yoshio; Nakamura, Jiro
PATENT ASSIGNEE(S): Shinetsu Chemical Industry Co., Ltd., Japan; Nippon Telegraph & Telephone
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09015848	A	19970117	JP 1995-186167	19950629
JP 3399166	B2	20030421		

PRIORITY APPLN. INFO.: JP 1995-186167 19950629
OTHER SOURCE(S): MARPAT 126:218586
GI



I

AB The resist contains a sulfonium salt I [R1 = H, alkyl, alkoxy, dialkylamino; OR2 = acid-labile group; Y = (un)substituted alkyl- or arylsulfonate; n = 0-2, m = 1-3, m + n = 3]. The material provides high resolution patterns with good profile.

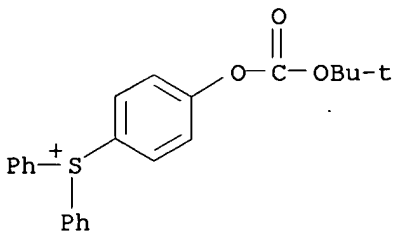
IT 170632-69-6 186889-52-1 188022-38-0
188022-42-6 188022-43-7
RL: CAT (Catalyst use); USES (Uses)
(chemical-amplified pos.-working resists containing sulfonium photoacid generators)

RN 170632-69-6 CAPLUS

CN Sulfonium, [4-[[(1,1-dimethylethoxy)carbonyl]oxy]phenyl]diphenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

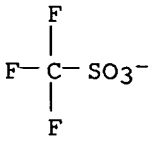
CM 1

CRN 170632-68-5
CMF C23 H23 O3 S



CM 2

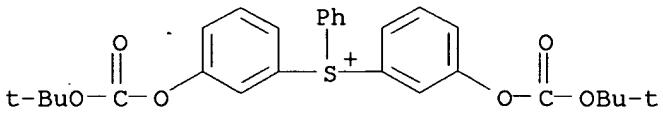
CRN 37181-39-8
CMF C F3 O3 S



RN 186889-52-1 CAPLUS
CN Sulfonium, bis[3-[[(1,1-dimethylethoxy)carbonyl]oxy]phenyl]phenyl-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

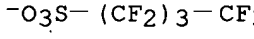
CM 1

CRN 186889-51-0
CMF C28 H31 O6 S



CM 2

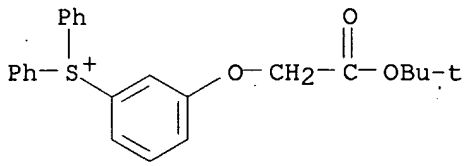
CRN 45187-15-3
CMF C4 F9 O3 S



RN 188022-38-0 CAPLUS
CN Sulfonium, [3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]diphenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

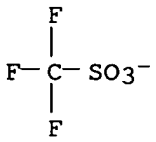
CM 1

CRN 186889-53-2
CMF C24 H25 O3 S



CM 2

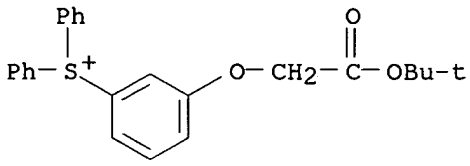
CRN 37181-39-8
CMF C F3 O3 S



RN 188022-42-6 CAPLUS
CN Sulfonium, [3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]diphenyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

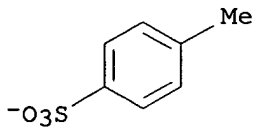
CM 1

CRN 186889-53-2
CMF C24 H25 O3 S



CM 2

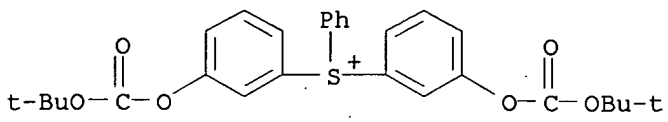
CRN 16722-51-3
CMF C7 H7 O3 S



RN 188022-43-7 CAPLUS
CN Sulfonium, bis[3-[[(1,1-dimethylethoxy)carbonyl]oxy]phenyl]phenyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

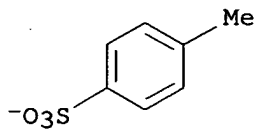
CM 1

CRN 186889-51-0
CMF C28 H31 O6 S



CM 2

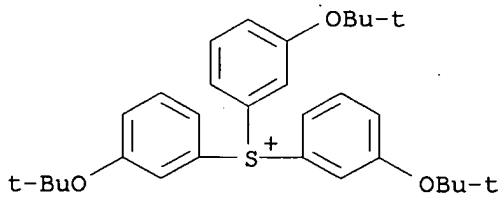
CRN 16722-51-3
CMF C7 H7 O3 S



IT 186769-08-4P 186889-18-9P
RL: CAT (Catalyst use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(chemical-amplified pos.-working resists containing sulfonium photoacid generators)
RN 186769-08-4 CAPLUS
CN Sulfonium, tris[3-(1,1-dimethylethoxy)phenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

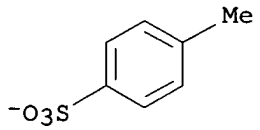
CM 1

CRN 186769-07-3
CMF C30 H39 O3 S



CM 2

CRN 16722-51-3
CMF C7 H7 O3 S

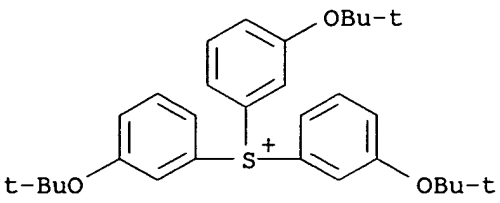


RN 186889-18-9 CAPLUS
CN Sulfonium, tris[3-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

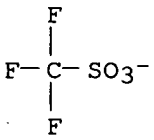
CRN 186769-07-3

CMF C30 H39 O3 S



CM 2

CRN 37181-39-8
CMF C F3 O3 S

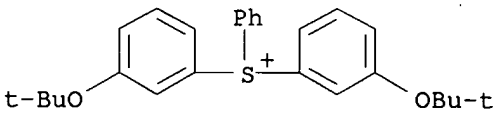


IT 186889-21-4P 186889-24-7P 186889-27-0P
186889-30-5P 186889-33-8P 186889-35-0P
186889-37-2P 186889-39-4P 186889-41-8P
186889-43-0P 186889-45-2P 186889-47-4P
186889-49-6P 186889-60-1P 188022-57-3P
RL: CAT (Catalyst use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(preparation of photoacid generator by Grignard reaction for photoresists)

RN 186889-21-4 CAPLUS
CN Sulfonium, bis[3-(1,1-dimethylethoxy)phenyl]phenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

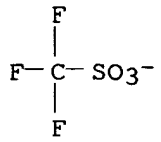
CM 1

CRN 186889-20-3
CMF C26 H31 O2 S



CM 2

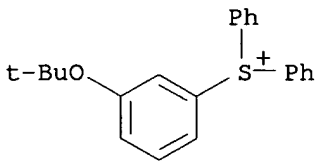
CRN 37181-39-8
CMF C F3 O3 S



RN 186889-24-7 CAPLUS
CN Sulfonium, [3-(1,1-dimethylethoxy)phenyl]diphenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

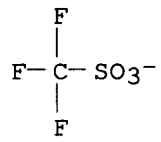
CM 1

CRN 186889-23-6
CMF C22 H23 O S



CM 2

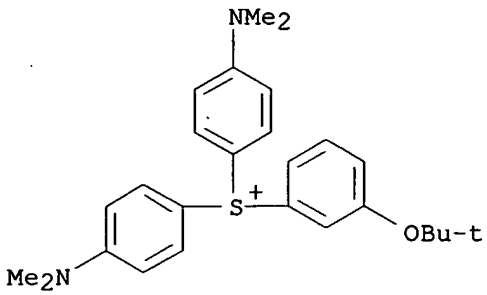
CRN 37181-39-8
CMF C F3 O3 S



RN 186889-27-0 CAPLUS
CN Sulfonium, bis[4-(dimethylamino)phenyl][3-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

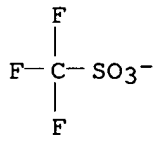
CM 1

CRN 186889-26-9
CMF C26 H33 N2 O S



CM 2

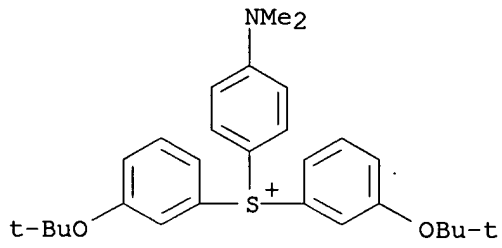
CRN 37181-39-8
CMF C F3 O3 S



RN 186889-30-5 CAPLUS
CN Sulfonium, [4-(dimethylamino)phenyl]bis[3-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

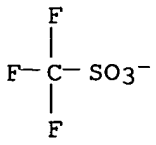
CM 1

CRN 186889-29-2
CMF C28 H36 N O2 S



CM 2

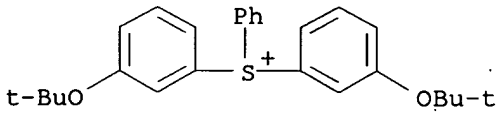
CRN 37181-39-8
CMF C F3 O3 S



RN 186889-33-8 CAPLUS
CN Sulfonium, bis[3-(1,1-dimethylethoxy)phenyl]phenyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

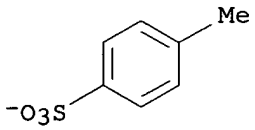
CM 1

CRN 186889-20-3
CMF C26 H31 O2 S



CM 2

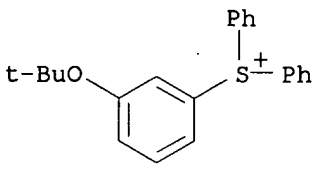
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186889-35-0 CAPLUS
CN Sulfonium, [3-(1,1-dimethylethoxy)phenyl]diphenyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

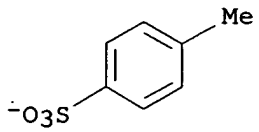
CM 1

CRN 186889-23-6
CMF C22 H23 O S



CM 2

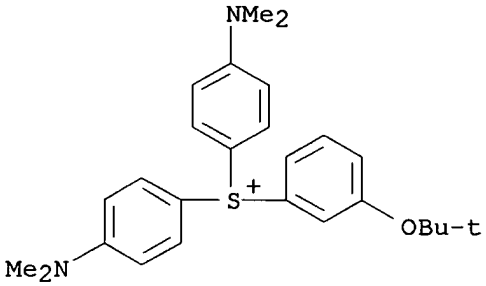
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186889-37-2 CAPLUS
CN Sulfonium, bis[4-(dimethylamino)phenyl][3-(1,1-dimethylethoxy)phenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

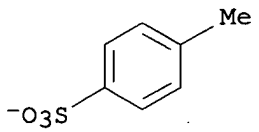
CM 1

CRN 186889-26-9
CMF C26 H33 N2 O S



CM 2

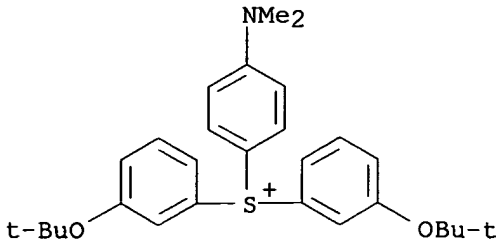
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186889-39-4 CAPLUS
CN Sulfonium, [4-(dimethylamino)phenyl]bis[3-(1,1-dimethylethoxy)phenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

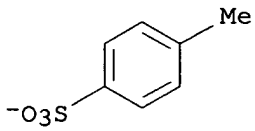
CM 1

CRN 186889-29-2
CMF C28 H36 N O2 S



CM 2

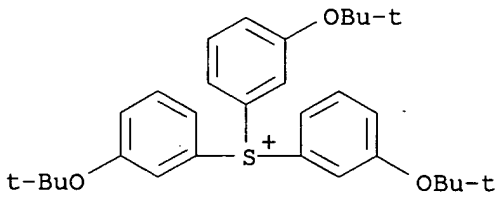
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186889-41-8 CAPLUS
CN Sulfonium, tris[3-(1,1-dimethylethoxy)phenyl]-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 186769-07-3
CMF C30 H39 O3 S



CM 2

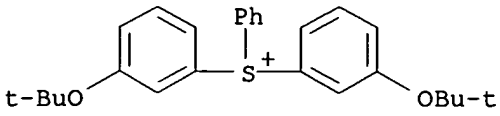
CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

RN 186889-43-0 CAPLUS
CN Sulfonium, bis[3-(1,1-dimethylethoxy)phenyl]phenyl-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 186889-20-3
CMF C26 H31 O2 S



CM 2

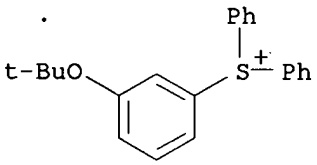
CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

RN 186889-45-2 CAPLUS
CN Sulfonium, [3-(1,1-dimethylethoxy)phenyl]diphenyl-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 186889-23-6
CMF C22 H23 O S



CM 2

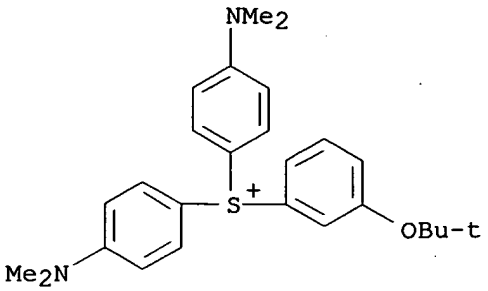
CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

RN 186889-47-4 CAPLUS
CN Sulfonium, bis[4-(dimethylamino)phenyl][3-(1,1-dimethylethoxy)phenyl]-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 186889-26-9
CMF C26 H33 N2 O S



CM 2

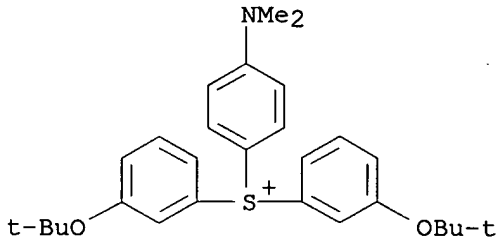
CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

RN 186889-49-6 CAPLUS
CN Sulfonium, [4-(dimethylamino)phenyl]bis[3-(1,1-dimethylethoxy)phenyl]-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 186889-29-2
CMF C28 H36 N O2 S



CM 2

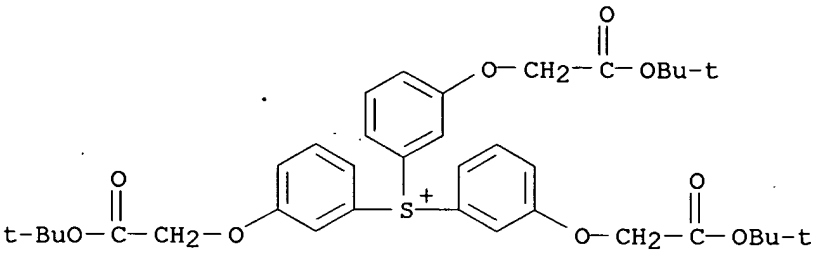
CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

RN 186889-60-1 CAPLUS
CN Sulfonium, tris[3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

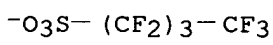
CM 1

CRN 186889-59-8
CMF C36 H45 O9 S



CM 2

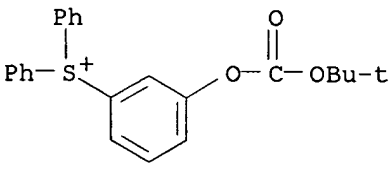
CRN 45187-15-3
CMF C4 F9 O3 S



RN 188022-57-3 CAPLUS
CN Sulfonium, [3-[[(1,1-dimethylethoxy)carbonyl]oxy]phenyl]diphenyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

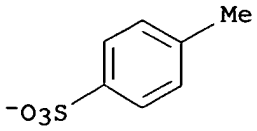
CM 1

CRN 186889-56-5
CMF C23 H23 O3 S



CM 2

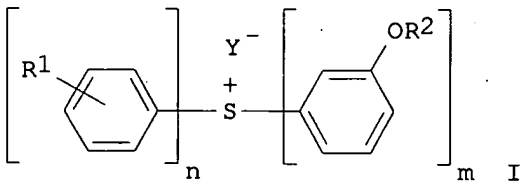
CRN 16722-51-3
CMF C7 H7 O3 S



L5 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:154980 CAPLUS
DOCUMENT NUMBER: 126:179054
ORIGINAL REFERENCE NO.: 126:34425a,34428a
TITLE: Preparation of triphenylsulfonium salts as acid generating agents for chemically amplified positive photoresists
INVENTOR(S): Oosawa, Yoichi; Takemura, Katsuya; Watanabe, Satoshi; Ishihara, Toshinobu; Nagura, Shigehiro
PATENT ASSIGNEE(S): Shinetsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09012537	A	19970114	JP 1995-186168	19950629
JP 3606291	B2	20050105		
PRIORITY APPLN. INFO.:			JP 1995-186168	19950629
OTHER SOURCE(S):	MARPAT 126:179054			

GI



AB Triphenylsulfonium salts [I; R1 = H, alkyl, alkoxy, dialkylamino; OR2 = acid-unstable group; Y = (un)substituted alkylsulfonate or arylsulfonate; n = 0-2; m = 1-3, n + m = 3] are prepared I are useful as components of chemical amplified pos. photoresists with high resolution and suitable for microlithog. of LSI. Thus, 28.6 g trimethylsilyl triflate was added dropwise to a solution of 17.8 g bis(3-tert-butoxyphenyl) sulfoxide and 5.3 g Et3N in DMF at <10° and stirred at 0-10° for 30 min, followed by adding dropwise a Grignard reagent prepared from 3-tert-butoxychlorobenzene and Mg in THF, and the resulting mixture was allowed to react at 0-10° for 30 min to give 29% tris(3-tert-butoxyphenyl)sulfonium triflate (II) of 99% purity. II showed mol. extinction coefficient of 12,200 at 248 nm (UV). A photoresist containing II, poly(p-hydroxystyrene) tert-butoxycarbonate ester (alkali-soluble resin),

2,2'-bis(tert-butoxycarbonyloxyphenyl)propane (dissoln. inhibitor), and 1-ethoxy-2-propanol was spin-coated at 0.8 μm thickness on a silicon wafer, baked at 100° for 120 s, exposed by an excimer laser stepper, baked st 90° for 60 s, and developed by 38% Me4NOH to give a pos. pattern with 5.0 Ml/cm2 sensitivity and 0.22 μM resolution

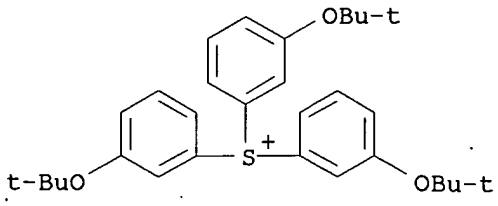
IT 186769-08-4P, Tris(3-tert-butoxyphenyl)sulfonium 4-toluenesulfonate 186889-18-9P, Tris(3-tert-butoxyphenyl)sulfonium trifluoromethanesulfonate 186889-21-4P, Bis(3-tert-butoxyphenyl)phenylsulfonium trifluoromethanesulfonate 186889-24-7P, (3-tert-Butoxyphenyl)diphenylsulfonium trifluoromethanesulfonate 186889-27-0P, (3-tert-Butoxyphenyl)bis(4-dimethylaminophenyl)sulfonium trifluoromethanesulfonate 186889-30-5P, Bis(3-tert-butoxyphenyl)(4-dimethylaminophenyl)sulfonium trifluoromethanesulfonate 186889-33-8P, Bis(3-tert-butoxyphenyl)phenylsulfonium 4-toluenesulfonate 186889-35-0P, (3-tert-Butoxyphenyl)diphenylsulfonium 4-toluenesulfonate 186889-37-2P, (3-tert-Butoxyphenyl)bis(4-dimethylaminophenyl)sulfonium 4-toluenesulfonate 186889-39-4P, Bis(3-tert-butoxyphenyl)(4-dimethylaminophenyl)sulfonium 4-toluenesulfonate 186889-41-8P, Tris(3-tert-butoxyphenyl)sulfonium nonafluorobutanesulfonate 186889-43-0P, Bis(3-tert-butoxyphenyl)phenylsulfonium nonafluorobutanesulfonate 186889-45-2P, (3-tert-Butoxyphenyl)diphenylsulfonium nonafluorobutanesulfonate 186889-47-4P, (3-tert-Butoxyphenyl)bis(4-dimethylaminophenyl)sulfonium nonafluorobutanesulfonate 186889-49-6P, Bis(3-tert-butoxyphenyl)(4-dimethylaminophenyl)sulfonium nonafluorobutanesulfonate 186889-52-1P, Bis(3-tert-butoxycarbonyloxyphenyl)phenylsulfonium nonafluorobutanesulfonate 186889-54-3P, (3-tert-Butoxycarbonylmethyloxyphenyl)diphenylsulfonium nonafluorobutanesulfonate 186889-57-6P, (3-tert-Butoxycarbonyloxyphenyl)diphenylsulfonium nonafluorobutanesulfonate 186889-60-1P, Tris(3-tert-butoxycarbonylmethyloxyphenyl)sulfonium nonafluorobutanesulfonate
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of triphenylsulfonium salts as acid generating agents for chemical amplified pos. photoresists)

RN 186769-08-4 CAPLUS

CN Sulfonium, tris[3-(1,1-dimethylethoxy)phenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

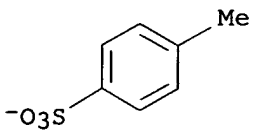
CM 1

CRN 186769-07-3
CMF C30 H39 O3 S



CM 2

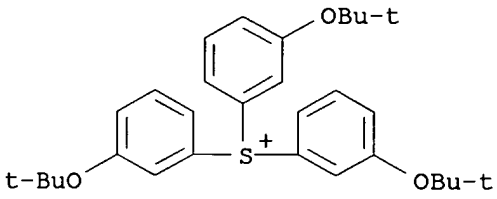
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186889-18-9 CAPLUS
CN Sulfonium, tris[3-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

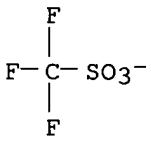
CM 1

CRN 186769-07-3
CMF C30 H39 O3 S



CM 2

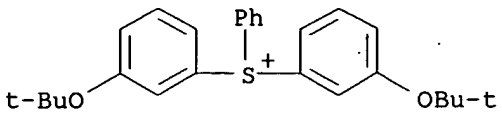
CRN 37181-39-8
CMF C F3 O3 S



RN 186889-21-4 CAPLUS
CN Sulfonium, bis[3-(1,1-dimethylethoxy)phenyl]phenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

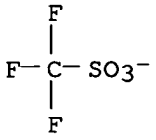
CM 1

CRN 186889-20-3
CMF C26 H31 O2 S



CM 2

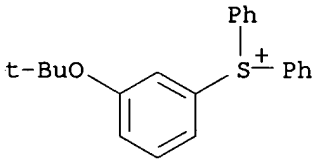
CRN 37181-39-8
CMF C F3 O3 S



RN 186889-24-7 CAPLUS
CN Sulfonium, [3-(1,1-dimethylethoxy)phenyl]diphenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

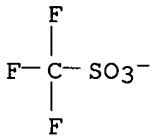
CM 1

CRN 186889-23-6
CMF C22 H23 O S



CM 2

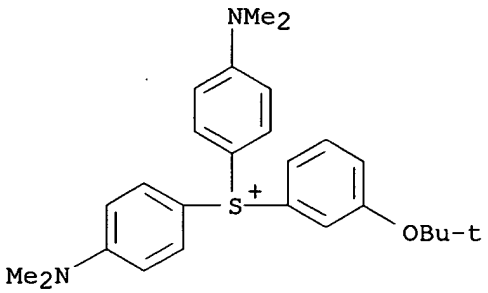
CRN 37181-39-8
CMF C F3 O3 S



RN 186889-27-0 CAPLUS
CN Sulfonium, bis[4-(dimethylamino)phenyl][3-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

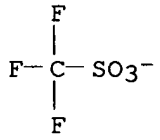
CM 1

CRN 186889-26-9
CMF C26 H33 N2 O S



CM 2

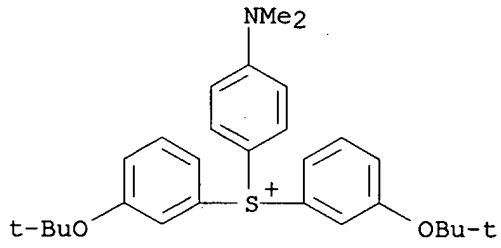
CRN 37181-39-8
CMF C F3 O3 S



RN 186889-30-5 CAPLUS
CN Sulfonium, [4-(dimethylamino)phenyl]bis[3-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

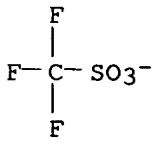
CM 1

CRN 186889-29-2
CMF C28 H36 N O2 S



CM 2

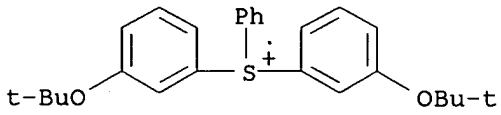
CRN 37181-39-8
CMF C F3 O3 S



RN 186889-33-8 CAPLUS
CN Sulfonium, bis[3-(1,1-dimethylethoxy)phenyl]phenyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

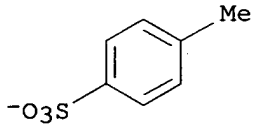
CM 1

CRN 186889-20-3
CMF C26 H31 O2 S



CM 2

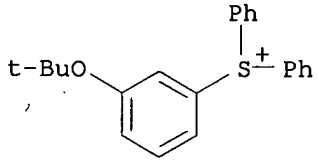
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186889-35-0 CAPLUS
CN Sulfonium, [3-(1,1-dimethylethoxy)phenyl]diphenyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

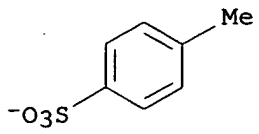
CM 1

CRN 186889-23-6
CMF C22 H23 O S



CM 2

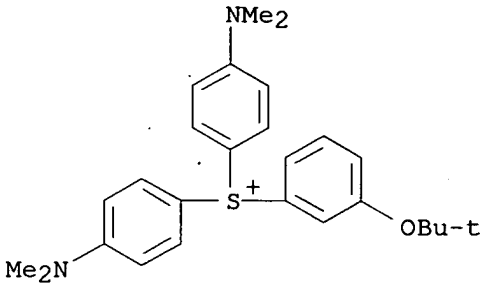
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186889-37-2 CAPLUS
CN Sulfonium, bis[4-(dimethylamino)phenyl][3-(1,1-dimethylethoxy)phenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

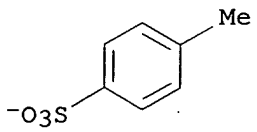
CM 1

CRN 186889-26-9
CMF C26 H33 N2 O S



CM 2

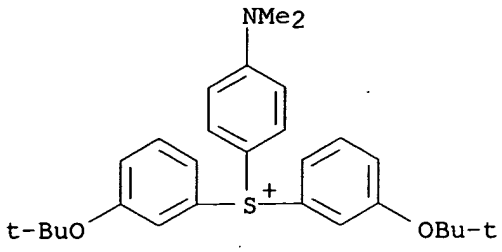
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186889-39-4 CAPLUS
CN Sulfonium, [4-(dimethylamino)phenyl]bis[3-(1,1-dimethylethoxy)phenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

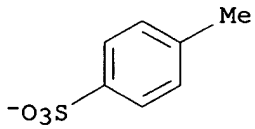
CM 1

CRN 186889-29-2
CMF C28 H36 N O2 S



CM 2

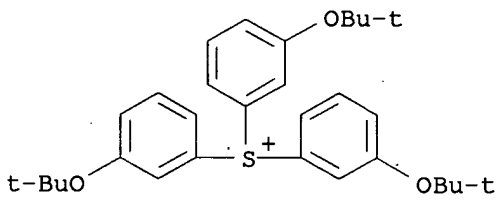
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186889-41-8 CAPLUS
CN Sulfonium, tris[3-(1,1-dimethylethoxy)phenyl]-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

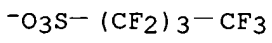
CM 1

CRN 186769-07-3
CMF C30 H39 O3 S



CM 2

CRN 45187-15-3
CMF C4 F9 O3 S

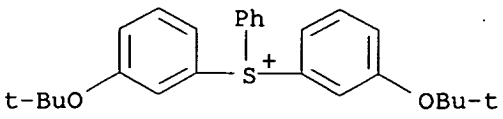


RN 186889-43-0 CAPLUS
CN Sulfonium, bis[3-(1,1-dimethylethoxy)phenyl]phenyl-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX

NAME)

CM 1

CRN 186889-20-3
CMF C26 H31 O2 S



CM 2

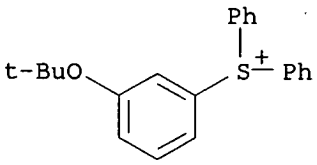
CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

RN 186889-45-2 CAPLUS
CN Sulfonium, [3-(1,1-dimethylethoxy)phenyl]diphenyl-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 186889-23-6
CMF C22 H23 O S



CM 2

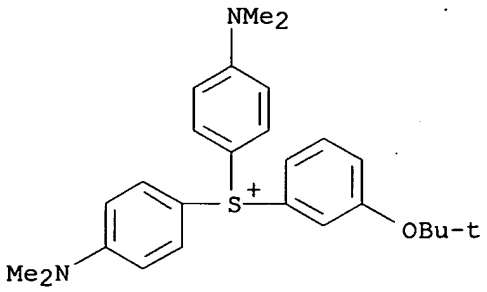
CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

RN 186889-47-4 CAPLUS
CN Sulfonium, bis[4-(dimethylamino)phenyl][3-(1,1-dimethylethoxy)phenyl]-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 186889-26-9
CMF C26 H33 N2 O S



CM 2

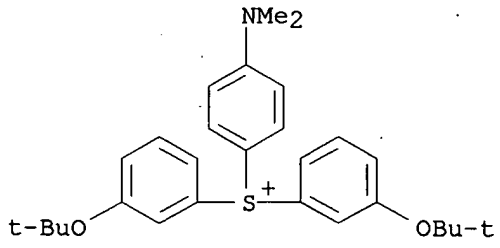
CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

RN 186889-49-6 CAPLUS
CN Sulfonium, [4-(dimethylamino)phenyl]bis[3-(1,1-dimethylethoxy)phenyl]-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 186889-29-2
CMF C28 H36 N O2 S



CM 2

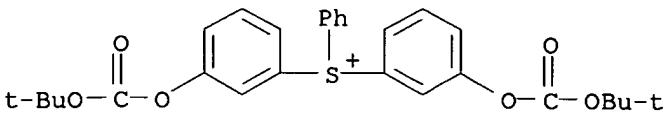
CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

RN 186889-52-1 CAPLUS
CN Sulfonium, bis[3-[[(1,1-dimethylethoxy)carbonyl]oxy]phenyl]phenyl-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

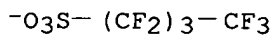
CM 1

CRN 186889-51-0
CMF C28 H31 O6 S



CM 2

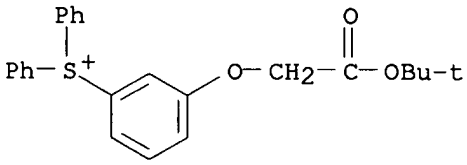
CRN 45187-15-3
CMF C4 F9 O3 S



RN 186889-54-3 CAPLUS
CN Sulfonium, [3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]diphenyl-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

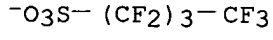
CM 1

CRN 186889-53-2
CMF C24 H25 O3 S



CM 2

CRN 45187-15-3
CMF C4 F9 O3 S

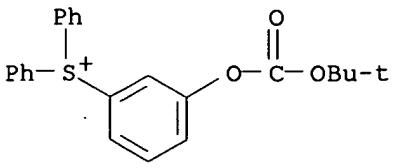


RN 186889-57-6 CAPLUS

CN Sulfonium, [3-[[(1,1-dimethylethoxy)carbonyl]oxy]phenyl]diphenyl-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 186889-56-5
CMF C23 H23 O3 S



CM 2

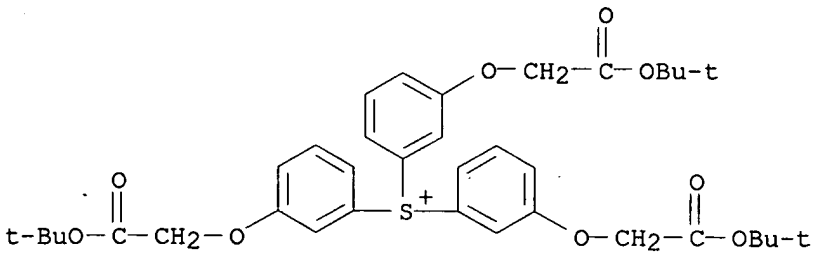
CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

RN 186889-60-1 CAPLUS
CN Sulfonium, tris[3-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 186889-59-8
CMF C36 H45 O9 S



CM 2

CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

L5 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:97151 CAPLUS
DOCUMENT NUMBER: 126:104070
ORIGINAL REFERENCE NO.: 126:20081a,20084a
TITLE: Preparation of (3,4-methylenedioxy- or 3,4-isopropylidenedioxyphenyl)diphenylsulfonium salts as acid-generating agents and chemical amplification-type positive-working photoresist material containing them
INVENTOR(S): Oosawa, Yoichi; Watanabe, Satoshi; Shimada, Junji; Takemura, Katsuya; Nagura, Shigehiro; Ishihara, Toshinobu
PATENT ASSIGNEE(S): Shinetsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

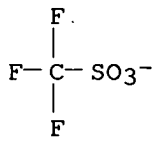
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08325259	A	19961210	JP 1995-155141	19950530
JP 3601548	B2	20041215		
PRIORITY APPLN. INFO.:			JP 1995-155141	19950530
OTHER SOURCE(S):	MARPAT 126:104070			

AB The title compds. (I; R1 = H, alkyl, alkoxy, dialkylamino; R2, R3 = H, alkyl; or R2 and R3 are bonded together to form a ring; Y = (un)substituted alkyl or arylsulfonate; n = 0-2; m = 1-3 and n + m = 3) are prepared A chemical amplification-type pos.-working photoresist material containing I is claimed. I can increase dissoln. contrast between exposed and unexposed part and shifts the maximum absorption wavelength to a longer wavelength to raise transmissivity at near 250 nm owing to the electro-donating effect of the substituents, and are suitable as components for chemical amplification-type pos.-working photoresist material with high resolution in microlithog. This photoresist possess high sensitivity for high energy rays such as far-UV, electron beam, and X-rays, and excellent in sensitivity, resolution, plasma etching resistance, and thermal resistance of a resist pattern, and may be used for far-UV lithog. using KrF excimer laser in manufacturing LSI. Thus, bis[(3,4-isopropylidenedioxy)phenyl] sulfoxide was dissolved in THF and ice-cooled, followed by adding Et3N and adding dropwise trimethylsilyl triflate, and to the resulting solution was added dropwise a Grignard reagent prepared from 1,2-(isopropylidenedioxy)-4-bromobenzene and mg metal at <10° to give, after aging the reaction mixture at 0-10° for 30 min, 25% tris[3,4-(isopropylidenedioxy)phenyl]sulfonium triflate (II). A photoresist containing II 5, 2,2-bis[4-(tert-butoxycarbonyloxy)phenyl]propane (dissoln. inhibitor) 20, and tert-butoxycarbonylated poly(4-hydroxystyrene) 70, and 1-ethoxy-2-propanol 450 part was spin-coated to 0.8 μm thickness on a silicon wafer, baked for 120 s on a hot plate, exposed by an excimer laser stepper, baked at 90° for 60 s, and developed by 2.38% aqueous tetramethylammonium hydroxide solution to give a pos. pattern with 6.5 mJ/cm2

sensitivity and 0.24 μm resolution
IT 66003-78-9P, Triphenylsulfonium triflate 138888-95-6P
186001-64-9P 186001-66-1P 186001-68-3P
186001-70-7P 186001-72-9P 186001-74-1P
186001-76-3P 186001-77-4P 186001-78-5P
186001-79-6P 186001-80-9P 186001-81-0P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of (methylenedioxy- or isopropylidenedioxyphenyl)diphenylsulfonium salts as acid-generating agents for chemical amplification-type pos.-working photoresists)
RN 66003-78-9 CAPLUS
CN Sulfonium, triphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

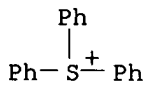
CM 1

CRN 37181-39-8
CMF C F3 O3 S



CM 2

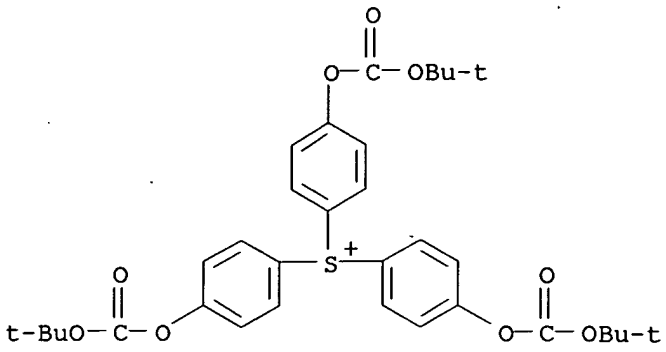
CRN 18393-55-0
CMF C18 H15 S



RN 138888-95-6 CAPLUS
CN Sulfonium, tris[4-[[(1,1-dimethylethoxy)carbonyl]oxy]phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

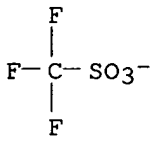
CM 1

CRN 120397-65-1
CMF C33 H39 O9 S



CM 2

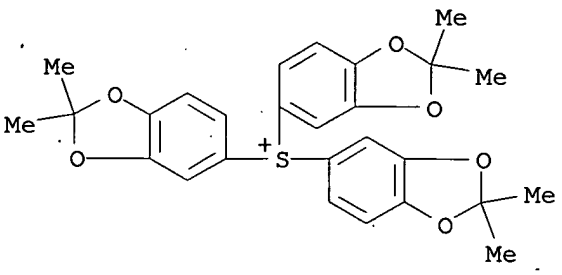
CRN 37181-39-8
CMF C F3 O3 S



RN 186001-64-9 CAPLUS
CN Sulfonium, tris(2,2-dimethyl-1,3-benzodioxol-5-yl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

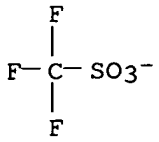
CM 1

CRN 186001-63-8
CMF C27 H27 O6 S



CM 2

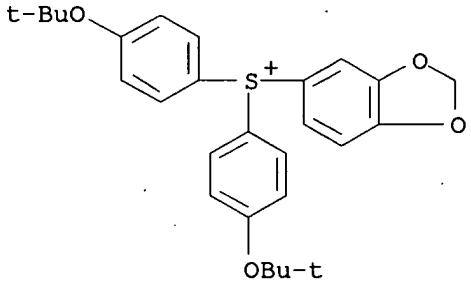
CRN 37181-39-8
CMF C F3 O3 S



RN 186001-66-1 CAPLUS
CN Sulfonium, 1,3-benzodioxol-5-ylbis[4-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

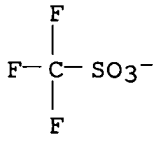
CM 1

CRN 186001-65-0
CMF C27 H31 O4 S



CM 2

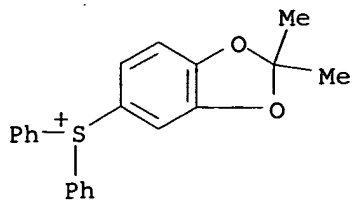
CRN 37181-39-8
CMF C F3 O3 S



RN 186001-68-3 CAPLUS
CN Sulfonium, (2,2-dimethyl-1,3-benzodioxol-5-yl)diphenyl-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 186001-67-2
CMF C21 H19 O2 S



CM 2

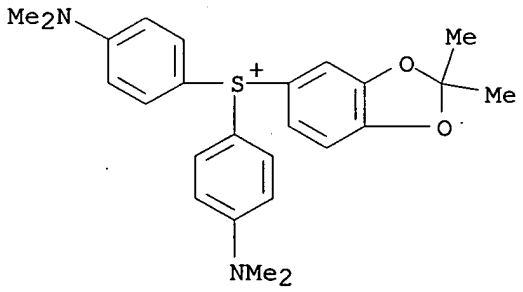
CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

RN 186001-70-7 CAPLUS
CN Sulfonium, bis[4-(dimethylamino)phenyl](2,2-dimethyl-1,3-benzodioxol-5-yl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

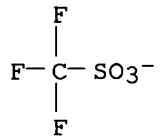
CM 1

CRN 186001-69-4
CMF C25 H29 N2 O2 S



CM 2

CRN 37181-39-8
CMF C F3 O3 S

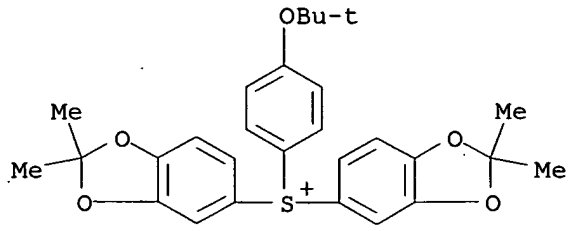


RN 186001-72-9 CAPLUS
CN Sulfonium, bis(2,2-dimethyl-1,3-benzodioxol-5-yl)[4-(1,1-

dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

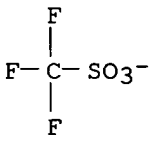
CM 1

CRN 186001-71-8
CMF C28 H31 O5 S



CM 2

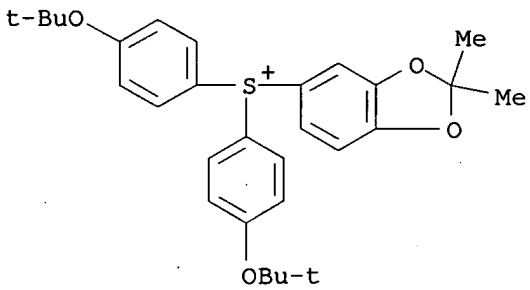
CRN 37181-39-8
CMF C F3 O3 S



RN 186001-74-1 CAPLUS
CN Sulfonium, (2,2-dimethyl-1,3-benzodioxol-5-yl)bis[4-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

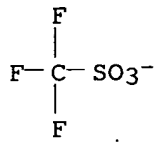
CM 1

CRN 186001-73-0
CMF C29 H35 O4 S



CM 2

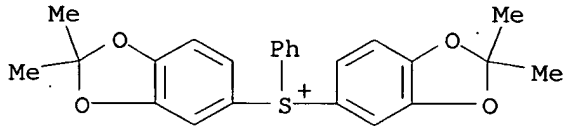
CRN 37181-39-8
CMF C F3 O3 S



RN 186001-76-3 CAPLUS
CN Sulfonium, bis(2,2-dimethyl-1,3-benzodioxol-5-yl)phenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

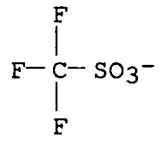
CM 1

CRN 186001-75-2
CMF C24 H23 O4 S



CM 2

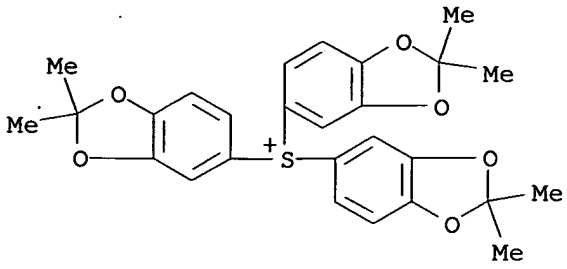
CRN 37181-39-8
CMF C F3 O3 S



RN 186001-77-4 CAPLUS
CN Sulfonium, tris(2,2-dimethyl-1,3-benzodioxol-5-yl)-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

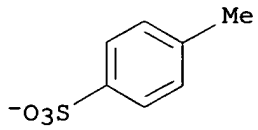
CM 1

CRN 186001-63-8
CMF C27 H27 O6 S



CM 2

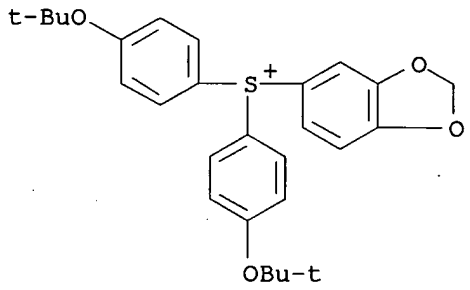
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186001-78-5 CAPLUS
CN Sulfonium, 1,3-benzodioxol-5-ylbis[4-(1,1-dimethylethoxy)phenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

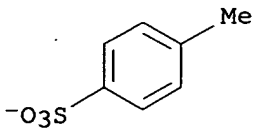
CM 1

CRN 186001-65-0
CMF C27 H31 O4 S



CM 2

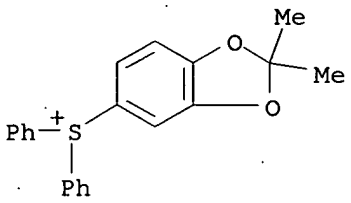
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186001-79-6 CAPLUS
CN Sulfonium, (2,2-dimethyl-1,3-benzodioxol-5-yl)diphenyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

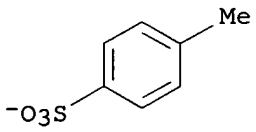
CM 1

CRN 186001-67-2
CMF C21 H19 O2 S



CM 2

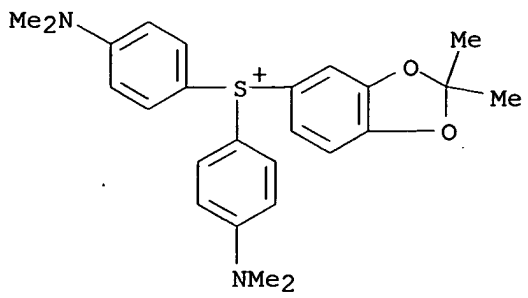
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186001-80-9 CAPLUS
CN Sulfonium, bis[4-(dimethylamino)phenyl](2,2-dimethyl-1,3-benzodioxol-5-yl)-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

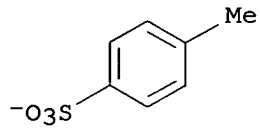
CM 1

CRN 186001-69-4
CMF C25 H29 N2 O2 S



CM 2

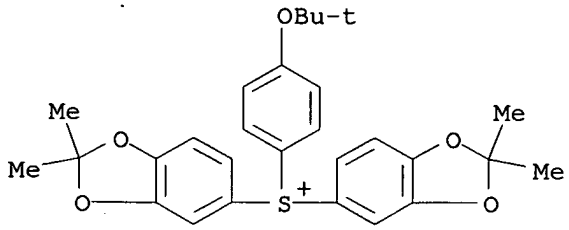
CRN 16722-51-3
CMF C7 H7 O3 S



RN 186001-81-0 CAPLUS
CN Sulfonium, bis(2,2-dimethyl-1,3-benzodioxol-5-yl)[4-(1,1-dimethylethoxy)phenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

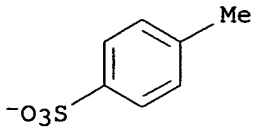
CM 1

CRN 186001-71-8
CMF C28 H31 O5 S



CM 2

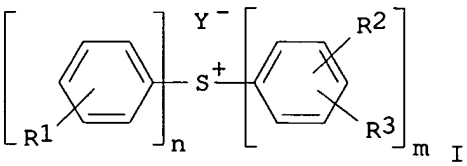
CRN 16722-51-3
CMF C7 H7 O3 S



L5 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:748363 CAPLUS
DOCUMENT NUMBER: 126:31153
ORIGINAL REFERENCE NO.: 126:6337a,6340a
TITLE: Preparation of phenylsulsonium salts as acid generating agents for highly sensitive positive photoresist materials
INVENTOR(S): Oosawa, Yoichi; Watanabe, Satoshi; Shimada, Junji; Takemura, Katsuya; Ishihara, Toshinobu
PATENT ASSIGNEE(S): Shinetsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08245566	A	19960924	JP 1995-84424	19950307
PRIORITY APPLN. INFO.:			JP 1995-84424	19950307
OTHER SOURCE(S):	MARPAT 126:31153			

GI



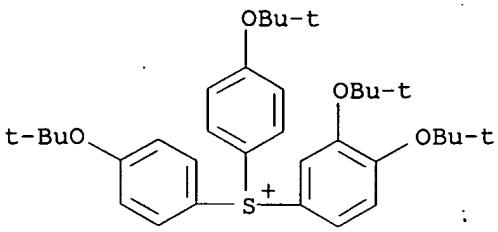
AB The title compds. (I; R1 = H, alkyl, alkoxy, dialkylamino; R2, R3 =Me3CO; Y = CF3SO3, p-TsO; n = 0-2; m = 1-3; n + m = 3) are prepared I are useful as components for chemical amplification-type photoresist materials in micro-process technic. Thus, bis(4-tert-butoxyphenyl) sulfoxide was reacted with CF3SO3SiMe3 in the presence of Et3N, and then reacted with 1,2-di-tert-butoxy-4-chlorobenzene and Mg to give 35% I (R1 = 4'-Me3CO, R2 = 3-Me3CO, R3 =4-Me3CO, Y = CF3SO3, n = 2, m = 1) (II). II showed sensitivity optimum exposure of 5.5 mJ/cm2.

IT 184291-51-8P 184291-53-0P 184291-55-2P
184291-57-4P 184291-59-6P 184291-61-0P
184291-63-2P 184291-66-5P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of phenylsulsonium salts as acid generating agents for highly sensitive pos. photoresist materials)

RN 184291-51-8 CAPLUS
CN Sulfonium, [3,4-bis(1,1-dimethylethoxy)phenyl]bis[4-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

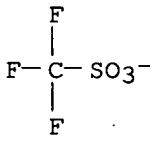
CM 1

CRN 184291-50-7
CMF C34 H47 O4 S



CM 2

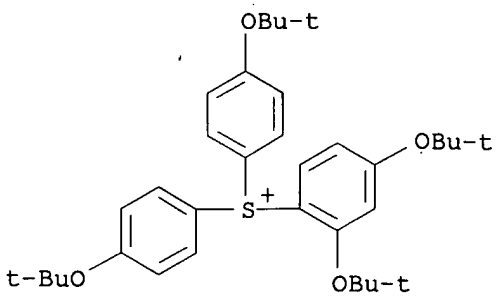
CRN 37181-39-8
CMF C F3 O3 S



RN 184291-53-0 CAPLUS
CN Sulfonium, [2,4-bis(1,1-dimethylethoxy)phenyl]bis[4-(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

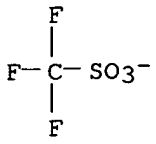
CM 1

CRN 184291-52-9
CMF C34 H47 O4 S



CM 2

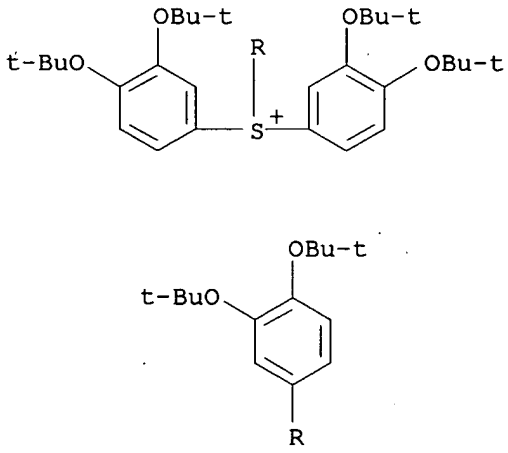
CRN 37181-39-8
CMF C F3 O3 S



RN 184291-55-2 CAPLUS
CN Sulfonium, tris[3,4-bis(1,1-dimethylethoxy)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

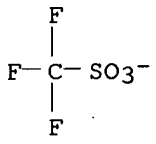
CM 1

CRN 184291-54-1
CMF C42 H63 O6 S



CM 2

CRN 37181-39-8
CMF C F3 O3 S

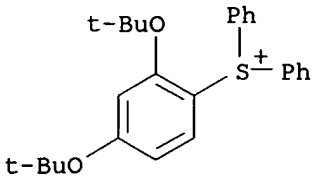


RN 184291-57-4 CAPLUS
CN Sulfonium, [2,4-bis(1,1-dimethylethoxy)phenyl]diphenyl-, salt with

trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

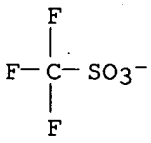
CM 1

CRN 184291-56-3
CMF C26 H31 O2 S



CM 2

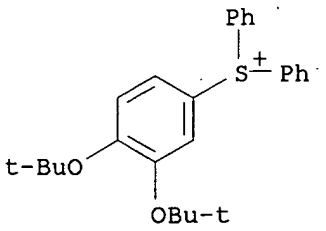
CRN 37181-39-8
CMF C F3 O3 S



RN 184291-59-6 CAPLUS
CN Sulfonium, [3,4-bis(1,1-dimethylethoxy)phenyl]diphenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

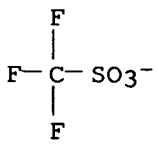
CM 1

CRN 184291-58-5
CMF C26 H31 O2 S



CM 2

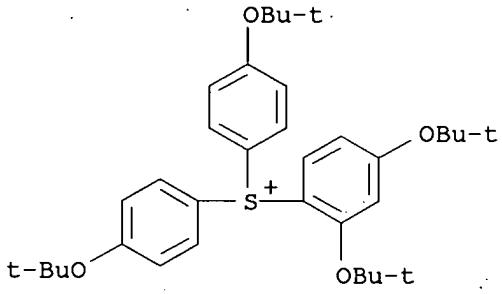
CRN 37181-39-8
CMF C F3 O3 S



RN 184291-61-0 CAPLUS
CN Sulfonium, [2,4-bis(1,1-dimethylethoxy)phenyl]bis[4-(1,1-dimethylethoxy)phenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

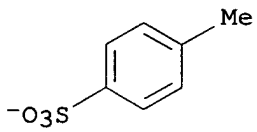
CM 1

CRN 184291-52-9
CMF C34 H47 O4 S



CM 2

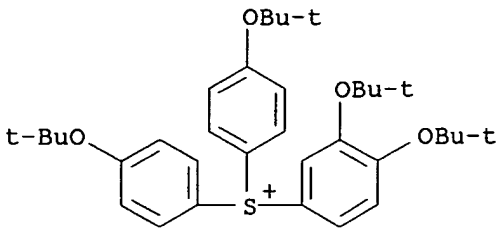
CRN 16722-51-3
CMF C7 H7 O3 S



RN 184291-63-2 CAPLUS
CN Sulfonium, [3,4-bis(1,1-dimethylethoxy)phenyl]bis[4-(1,1-dimethylethoxy)phenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

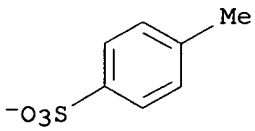
CM 1

CRN 184291-50-7
CMF C34 H47 O4 S



CM 2

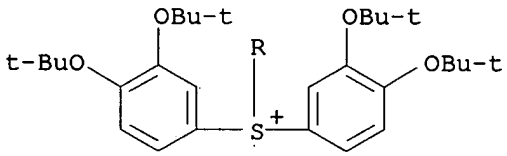
CRN 16722-51-3
CMF C7 H7 O3 S

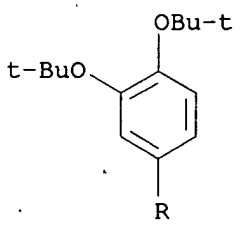


RN 184291-66-5 CAPLUS
CN Sulfonium, tris[3,4-bis(1,1-dimethylethoxy)phenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

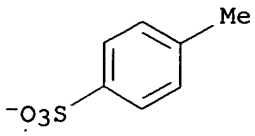
CRN 184291-54-1
CMF C42 H63 O6 S





CM 2

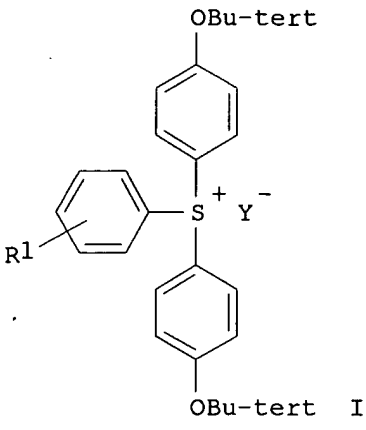
CRN 16722-51-3
CMF C7 H7 O3 S



L5 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:169329 CAPLUS
DOCUMENT NUMBER: 124:274529
ORIGINAL REFERENCE NO.: 124:50535a,50538a
TITLE: Chemical amplification positive-working resist materials
INVENTOR(S): Watanabe, Satoshi; Oikawa, Katsuyuki; Ishihara, Toshinobu; Tanaka, Haruyori; Matsuda, Korehito; Kawai, Yoshio
PATENT ASSIGNEE(S): Shinetsu Chemical Industry Co., Ltd., Japan; Nippon Telegraph & Telephone
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07333834	A	19951222	JP 1994-152655	19940610
JP 2964874	B2	19991018		
US 5624787	A	19970429	US 1995-466690	19950606
TW 390973	B	20000521	TW 1995-84105763	19950607
KR 212928	B1	19990802	KR 1995-15295	19950610

PRIORITY APPLN. INFO.: JP 1994-152655 A 19940610
OTHER SOURCE(S): MARPAT 124:274529
GI



I

AB The title materials contain a sulfonium salt I (R1 = H, alkyl, alkoxy; Y- = CF3SO3-, p-MeC6H4SO3-) and a N-containing compound The materials show high sensitivity toward KrF excimer lasers and resistance to plasma etching and provide high-resolution patterns with good thermal resistance. Thus, a resist comprised I (R1 = H, Y- = CF3SO3-), N-methylpyrrolidone, an alkali-soluble resin, and a dissoln. inhibitor.

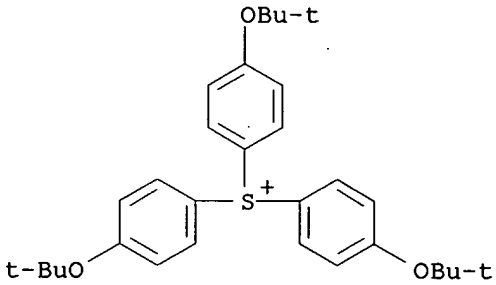
IT 157089-24-2P 160659-39-2P 161453-47-0P
170014-77-4P
RL: MOA (Modifier or additive use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acid generator; chemical amplification-type pos.-working photoresist containing sulfonium salt and nitrogen-containing compound)

RN 157089-24-2 CAPLUS

CN Sulfonium, tris[4-(1,1-dimethylethoxy)phenyl]-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

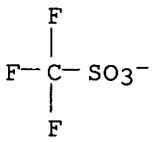
CM 1

CRN 137455-55-1
CMF C30 H39 O3 S



CM 2

CRN 37181-39-8
CMF C F3 O3 S

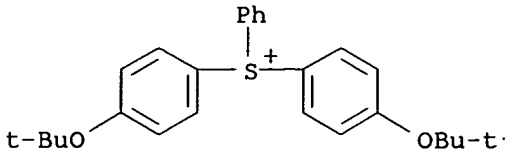


RN 160659-39-2 CAPLUS

CN Sulfonium, bis[4-(1,1-dimethylethoxy)phenyl]phenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

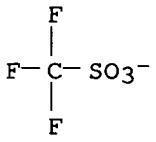
CM 1

CRN 160659-38-1
CMF C26 H31 O2 S



CM 2

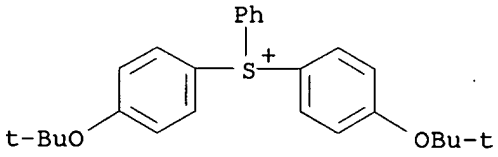
CRN 37181-39-8
CMF C F3 O3 S



RN 161453-47-0 CAPLUS
CN Sulfonium, bis[4-(1,1-dimethylethoxy)phenyl]phenyl-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

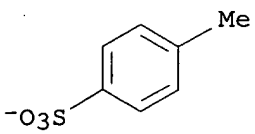
CM 1

CRN 160659-38-1
CMF C26 H31 O2 S



CM 2

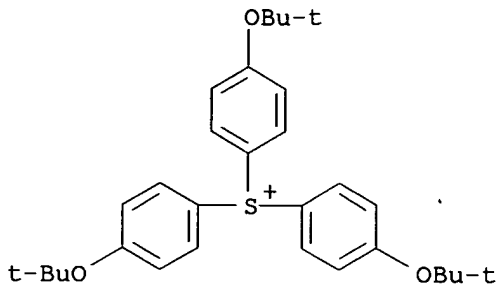
CRN 16722-51-3
CMF C7 H7 O3 S



RN 170014-77-4 CAPLUS
CN Sulfonium, tris[4-(1,1-dimethylethoxy)phenyl]-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

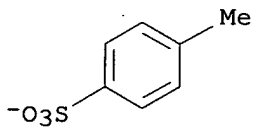
CM 1

CRN 137455-55-1
CMF C30 H39 O3 S



CM 2

CRN 16722-51-3
CMF C7 H7 O3 S



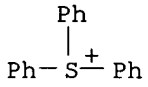
L5 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:458341 CAPLUS
DOCUMENT NUMBER: 113:58341
ORIGINAL REFERENCE NO.: 113:9859a,9862a
TITLE: Photochemistry of triarylsulfonium salts
AUTHOR(S): Dektar, John L.; Hacker, Nigel P.
CORPORATE SOURCE: Almaden Res. Cent., IBM Res. Div., San Jose, CA, 95120-6099, USA
SOURCE: Journal of the American Chemical Society (1990), 112(16), 6004-15
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:58341

AB The photolysis of triphenylsulfonium, tris(4-methylphenyl)sulfonium, tris(4-chlorophenyl)sulfonium, several monosubstituted (4-F, 4-Cl, 4-Me, 4-MeO, 4-PhS, and 4-PhCO), and disubstituted [4,4'-Me2 and 4,4'-(MeO)2] triphenylsulfonium salts was examined in solution Direct irradiation of triphenylsulfonium salts produced new rearrangement products, phenylthiobiphenyls, along with di-Ph sulfide, which had been previously reported. Similarly, the triarylsulfonium salts, with the exception of the [4-(phenylthio)phenyl]diphenylsulfonium salts, gave the new rearrangement products. The mechanism for direct photolysis is proposed to occur from the singlet excited state to give a predominant heterolytic cleavage along with some homolytic cleavage. The heterolytic cleavage gives Ph cation and di-Ph sulfide, whereas homolytic cleavage gives the singlet Ph radical and diphenylsulfinyl radical cation pair. These pairs

of intermediates then produce the observed photoproducts by an in-cage recombination mechanism and also by reactions with the solvent. The effect of solvent viscosity, solvent polarity, anion, and aryl substituent was examined The triplet sensitization of the sulfonium salts was also investigated. In contrast to previous reports, the triplet state of the sulfonium salt is labile, leading to a triplet geminate radical pair of Ph radical and diphenylsulfinyl radical cation. These species ultimately form benzene and di-Ph sulfide as products. Direct photolysis of the [4-(phenylthio)phenyl]diphenylsulfonium salt gave exclusively di-Ph sulfide, benzene, and acid and decomps. via the triplet excited state.

IT 3353-89-7P, Triphenylsulfonium bromide 57840-38-7P
62770-64-3P 66003-78-9P, Triphenylsulfonium triflate
71449-78-0P 77785-82-1P 125853-08-9P
127279-74-7P 127820-38-6P 127820-39-7P
127855-15-6P 127855-16-7P 127855-18-9P
127855-20-3P 127855-21-4P 127855-22-5P
127855-24-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and photolysis of, mechanism of)

RN 3353-89-7 CAPLUS
CN Sulfonium, triphenyl-, bromide (1:1) (CA INDEX NAME)

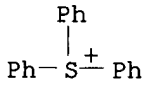


● Br^-

RN 57840-38-7 CAPLUS
CN Sulfonium, triphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (1:1) (CA INDEX NAME)

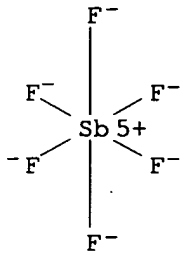
CM 1

CRN 18393-55-0
CMF C18 H15 S



CM 2

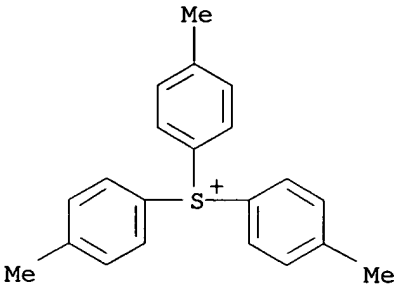
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 62770-64-3 CAPLUS
CN Sulfonium, tris(4-methylphenyl)-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

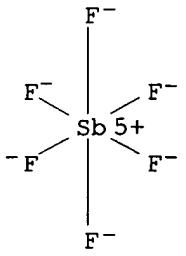
CM 1

CRN 47197-43-3
CMF C21 H21 S



CM 2

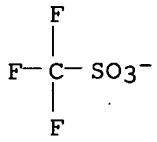
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 66003-78-9 CAPLUS
CN Sulfonium, triphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

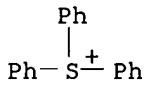
CM 1

CRN 37181-39-8
CMF C F3 O3 S



CM 2

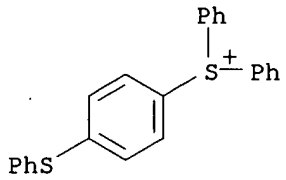
CRN 18393-55-0
CMF C18 H15 S



RN 71449-78-0 CAPLUS
CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, (OC-6-11)-hexafluoroantimonate(1-) (1:1) (CA INDEX NAME)

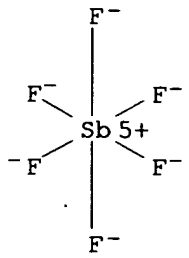
CM 1

CRN 47480-44-4
CMF C24 H19 S2



CM 2

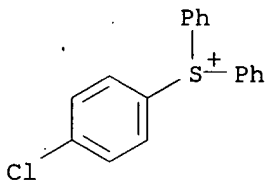
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 77785-82-1 CAPLUS
CN Sulfonium, (4-chlorophenyl)diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

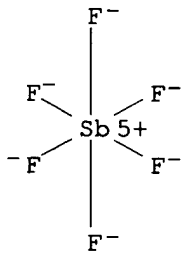
CM 1

CRN 47045-32-9
CMF C18 H14 Cl S



CM 2

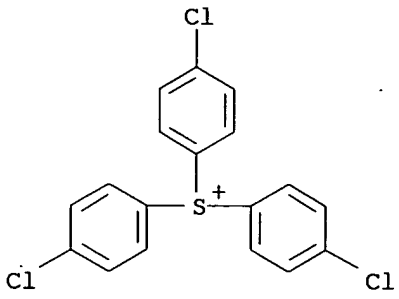
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 125853-08-9 CAPLUS
CN Sulfonium, tris(4-chlorophenyl)-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

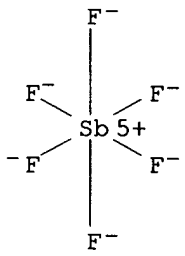
CM 1

CRN 125853-07-8
CMF C18 H12 Cl3 S



CM 2

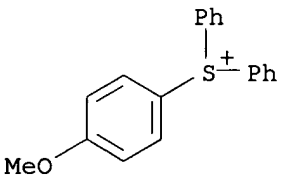
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 127279-74-7 CAPLUS
CN Sulfonium, (4-methoxyphenyl)diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

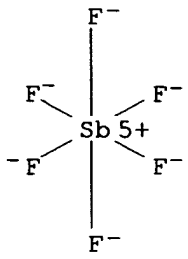
CM 1

CRN 70084-23-0
CMF C19 H17 O S



CM 2

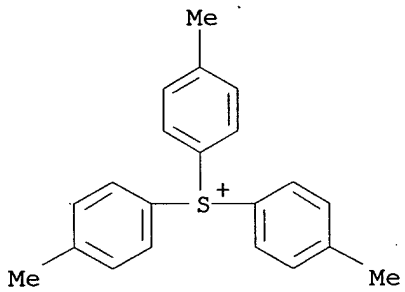
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 127820-38-6 CAPLUS
CN Sulfonium, tris(4-methylphenyl)-, trifluoromethanesulfonate (1:1) (CA INDEX NAME)

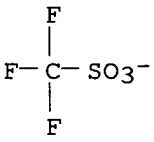
CM 1

CRN 47197-43-3
CMF C21 H21 S



CM 2

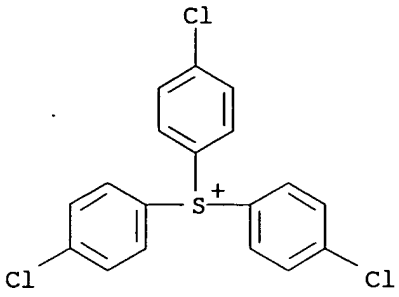
CRN 37181-39-8
CMF C F3 O3 S



RN 127820-39-7 CAPLUS
CN Sulfonium, tris(4-chlorophenyl)-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

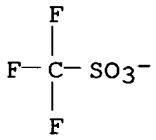
CM 1

CRN 125853-07-8
CMF C18 H12 Cl3 S



CM 2

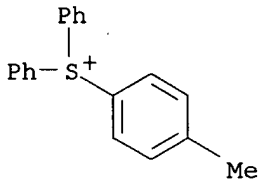
CRN 37181-39-8
CMF C F3 O3 S



RN 127855-15-6 CAPLUS
CN Sulfonium, (4-methylphenyl)diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

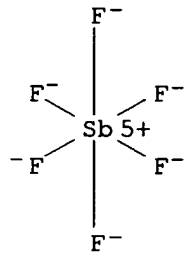
CM 1

CRN 47045-31-8
CMF C19 H17 S



CM 2

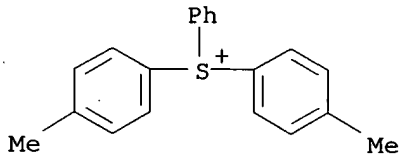
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 127855-16-7 CAPLUS
CN Sulfonium, bis(4-methylphenyl)phenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

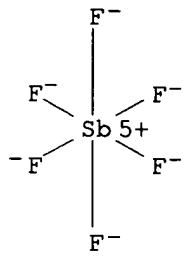
CM 1

CRN 70082-58-5
CMF C20 H19 S



CM 2

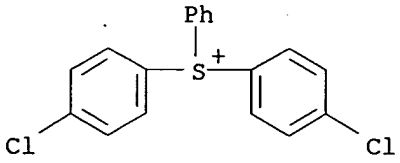
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 127855-18-9 CAPLUS
CN Sulfonium, bis(4-chlorophenyl)phenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

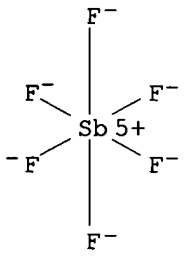
CM 1

CRN 127855-17-8
CMF C18 H13 Cl2 S



CM 2

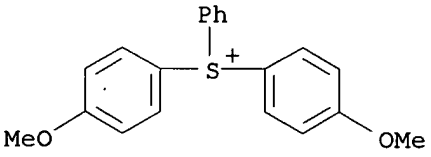
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 127855-20-3 CAPLUS
CN Sulfonium, bis(4-methoxyphenyl)phenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

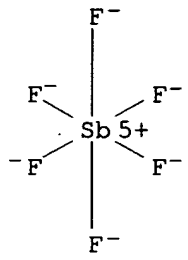
CM 1

CRN 127855-19-0
CMF C20 H19 O2 S



CM 2

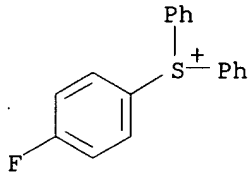
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 127855-21-4 CAPLUS
CN Sulfonium, (4-fluorophenyl)diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

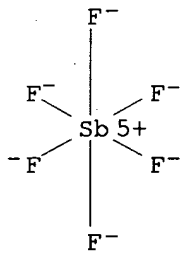
CM 1

CRN 70084-25-2
CMF C18 H14 F S



CM 2

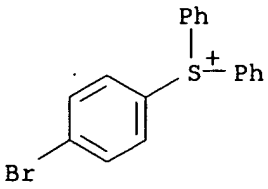
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 127855-22-5 CAPLUS
CN Sulfonium, (4-bromophenyl)diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

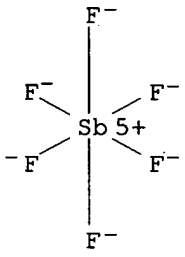
CM 1

CRN 70244-60-9
CMF C18 H14 Br S



CM 2

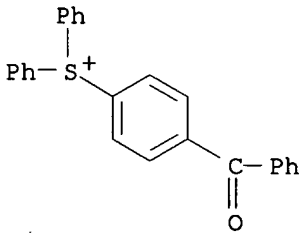
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 127855-24-7 CAPLUS
CN Sulfonium, (4-benzoylphenyl)diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

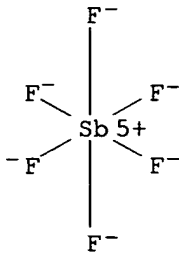
CM 1

CRN 127855-23-6
CMF C25 H19 O S

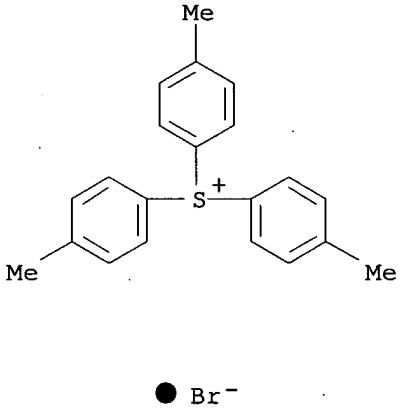


CM 2

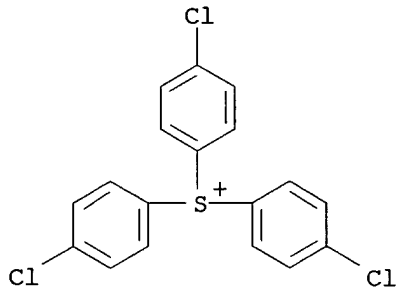
CRN 17111-95-4
CMF F6 Sb
CCI CCS



IT 3744-11-4P 125428-43-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactions of)
RN 3744-11-4 CAPLUS
CN Sulfonium, tris(4-methylphenyl)-, bromide (1:1) (CA INDEX NAME)



RN 125428-43-5 CAPLUS
CN Sulfonium, tris(4-chlorophenyl)-, bromide (1:1) (CA INDEX NAME)



L5 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN

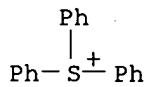
ACCESSION NUMBER: 1990:138734 CAPLUS
DOCUMENT NUMBER: 112:138734
ORIGINAL REFERENCE NO.: 112:23443a,23446a
TITLE: Synthesis of triarylsulfonium salts
INVENTOR(S): Dektar, John Louis; Hacker, Nigel Patrick
PATENT ASSIGNEE(S): International Business Machines Corp., USA
SOURCE: Eur. Pat. Appl., 5 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 327194	A1	19890809	EP 1989-300075	19890105
EP 327194	B1	19920708		
R: DE, FR, GB				
JP 02001469	A	19900105	JP 1988-316571	19881216
JP 06015524	B	19940302		
US 4980492	A	19901225	US 1989-317235	19890228
PRIORITY APPLN. INFO.:			US 1988-152729 A	19880205

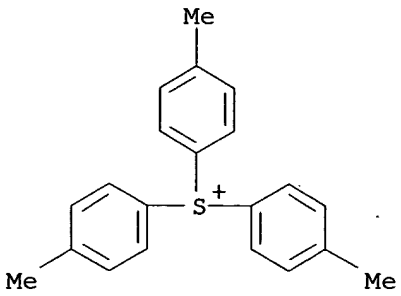
AB The title compds. are prepared by the reaction of an aryl Grignard reagent with a diaryl sulfoxide using a solvent (mixture of aliphatic and aromatic hydrocarbons) followed by metathesis with ZMF6 (Z = metal or metal-like; M = As, P, Sb) in a nonaq. solvent. Ph3S+Br- (prepared from PhMgBr and Ph2SO) and NH4+PF6- were mixed in MeCN and stirred for 15 h to give 86% Ph3S+PF6-.

IT 3353-89-7P 3744-11-4P 125428-43-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and metathesis reaction of)

RN 3353-89-7 CAPLUS
CN Sulfonium, triphenyl-, bromide (1:1) (CA INDEX NAME)

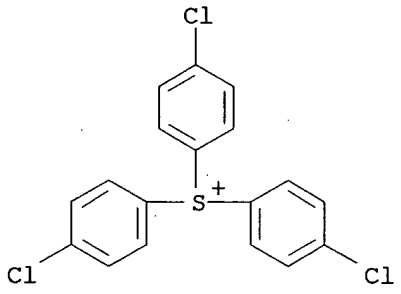


RN 3744-11-4 CAPLUS
CN Sulfonium, tris(4-methylphenyl)-, bromide (1:1) (CA INDEX NAME)



● Br^-

RN 125428-43-5 CAPLUS
CN Sulfonium, tris(4-chlorophenyl)-, bromide (1:1) (CA INDEX NAME)

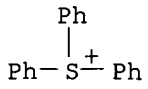


● Br^-

IT 57835-99-1P 57840-38-7P 62770-64-3P
125853-08-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 57835-99-1 CAPLUS
CN Sulfonium, triphenyl-, hexafluorophosphate(1-) (1:1) (CA INDEX NAME)

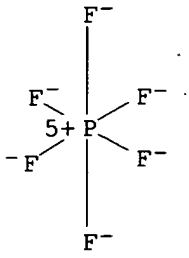
CM 1

CRN 18393-55-0
CMF C18 H15 S



CM 2

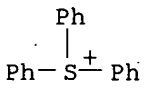
CRN 16919-18-9
CMF F6 P
CCI CCS



RN 57840-38-7 CAPLUS
CN Sulfonium, triphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (1:1) (CA INDEX NAME)

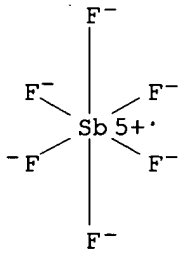
CM 1

CRN 18393-55-0
CMF C18 H15 S



CM 2

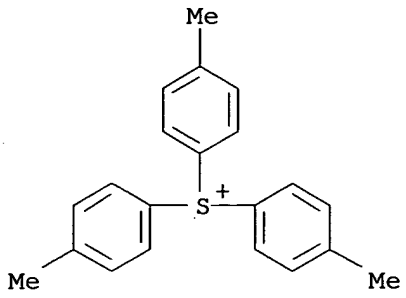
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 62770-64-3 CAPLUS
CN Sulfonium, tris(4-methylphenyl)-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

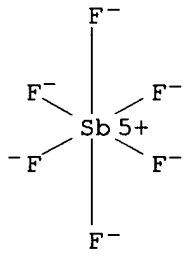
CM 1

CRN 47197-43-3
CMF C21 H21 S



CM 2

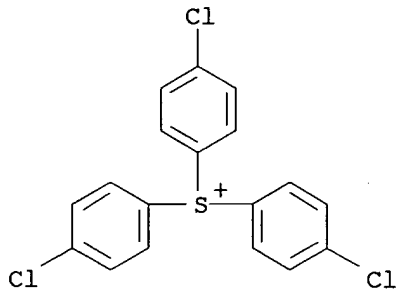
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 125853-08-9 CAPLUS
CN Sulfonium, tris(4-chlorophenyl)-, (OC-6-11)-hexafluoroantimonate(1-) (9CI)
(CA INDEX NAME)

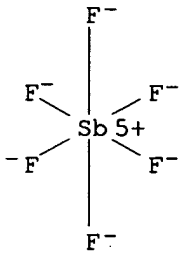
CM 1

CRN 125853-07-8
CMF C18 H12 Cl3 S



CM 2

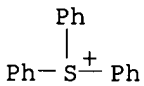
CRN 17111-95-4
CMF F6 Sb
CCI CCS

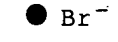


L5 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1988:589923 CAPLUS
DOCUMENT NUMBER: 109:189923
ORIGINAL REFERENCE NO.: 109:31423a,31426a
TITLE: Deoxygenation of sulfoxides promoted by electrophilic silicon reagents: preparation of aryl-substituted sulfonium salts
AUTHOR(S): Miller, R. D.; Renaldo, A. F.; Ito, H.
CORPORATE SOURCE: Almaden Res. Cent., IBM Res. Div., San Jose, CA, 95120-6099, USA
SOURCE: Journal of Organic Chemistry (1988), 53(23), 5571-3
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 109:189923

AB A new one-step synthesis of triaryl and alkylarylsulfonium salts has been developed. Treatment of diaryl sulfoxides with Grignard reagents, in the presence of alkylsilicon reagents, gave the corresponding sulfonium salts in moderate yields. The reaction, performed under mild conditions, can tolerate a variety of functional groups. Significantly, the unsym. sulfonium salts were isolated without the complication of ligand exchange. The scope of this methodol. as well as possible synthetic utility is discussed.

IT 3353-89-7P 66003-78-9P 81416-37-7P
111281-12-0P 116808-64-1P 116808-66-3P
116808-67-4P 116808-69-6P 116808-75-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 3353-89-7 CAPLUS
CN Sulfonium, triphenyl-, bromide (1:1) (CA INDEX NAME)

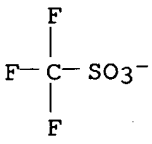




RN 66003-78-9 CAPLUS
CN Sulfonium, triphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

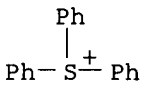
CM 1

CRN 37181-39-8
CMF C F3 O3 S



CM 2

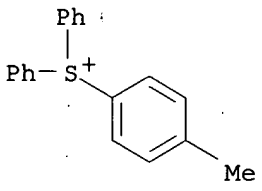
CRN 18393-55-0
CMF C18 H15 S



RN 81416-37-7 CAPLUS
CN Sulfonium, (4-methylphenyl)diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

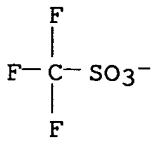
CM 1

CRN 47045-31-8
CMF C19 H17 S



CM 2

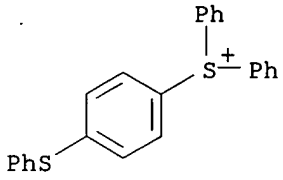
CRN 37181-39-8
CMF C F3 O3 S



RN 111281-12-0 CAPLUS
CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

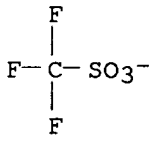
CM 1

CRN 47480-44-4
CMF C24 H19 S2

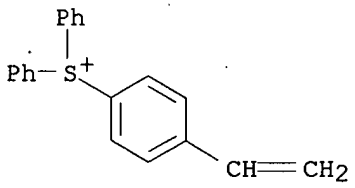


CM 2

CRN 37181-39-8
CMF C F3 O3 S



RN 116808-64-1 CAPLUS
CN Sulfonium, (4-ethenylphenyl)diphenyl-, bromide (9CI) (CA INDEX NAME)



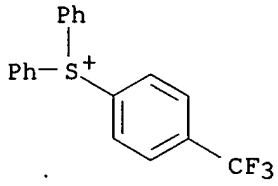
● Br^-

RN 116808-66-3 CAPLUS

CN Sulfonium, diphenyl[4-(trifluoromethyl)phenyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

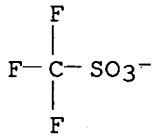
CM 1

CRN 116808-65-2
CMF C19 H14 F3 S



CM 2

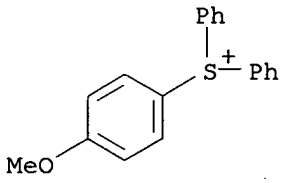
CRN 37181-39-8
CMF C F3 O3 S



RN 116808-67-4 CAPLUS
CN Sulfonium, (4-methoxyphenyl)diphenyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

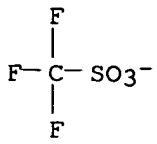
CM 1

CRN 70084-23-0
CMF C19 H17 O S



CM 2

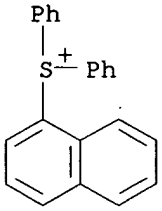
CRN 37181-39-8
CMF C F3 O3 S



RN 116808-69-6 CAPLUS
CN Sulfonium, 1-naphthalenyldiphenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

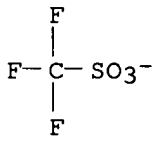
CM 1

CRN 116808-68-5
CMF C22 H17 S



CM 2

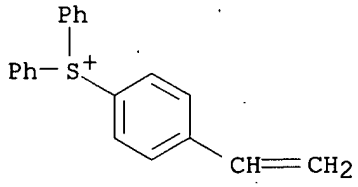
CRN 37181-39-8
CMF C F3 O3 S



RN 116808-75-4 CAPLUS
CN Sulfonium, (4-ethenylphenyl)diphenyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

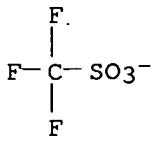
CM 1

CRN 116808-74-3
CMF C20 H17 S

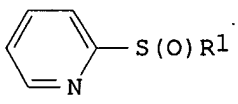


CM 2

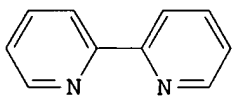
CRN 37181-39-8
CMF C F3 O3 S



L5 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1988:528785 CAPLUS
DOCUMENT NUMBER: 109:128785
ORIGINAL REFERENCE NO.: 109:21449a,21452a
TITLE: Occurrence of ligand coupling in the reactions of various sulfoxides with Grignard reagents
AUTHOR(S): Kawai, Tsutomu; Kodera, Yoichi; Furukawa, Naomichi; Oae, Shigeru; Ishida, Masahiro; Takeda, Takashi; Wakabayashi, Shoji
CORPORATE SOURCE: Dep. Chem., Univ. Tsukuba, Sakura, 305, Japan
SOURCE: Phosphorus and Sulfur and the Related Elements (1987), 34(3-4), 139-48
CODEN: PREEDF; ISSN: 0308-664X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 109:128785
GI



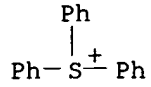
II



III

AB Reaction of RS(O)CH2Ph (I; R = 4-pyridyl) with PhMgBr gave 60% of the ligand coupling product 4-benzylpyridine. Similarly, I (R = 2-pyridyl) was treated with MeMgBr, EtMgBr, or PhMgBr to give 83-98% 2-benzylpyridine. In contrast, I (R = 3-pyridyl) and PhMgBr gave the ligand exchange products PhS(O)CH2Ph and PhS(O)Ph in 15 and 48% yield, resp. Reaction of 2-pyridyl sulfoxides II (R1 = Me, Et, Ph) with EtMgBr gave bipyridine III. A similar reaction of II (R1 = Me) with PhCH2MgCl gave 79% 2-benzylpyridine. The ease of coupling seems to be associated with the electronegativity of the coupling C atom of the ligand as shown by a comparison of the 13C NMR chemical shifts.

IT 3353-89-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(carbon-13 NMR spectral characteristics of)
RN 3353-89-7 CAPLUS
CN Sulfonium, triphenyl-, bromide (1:1) (CA INDEX NAME)



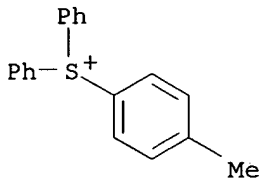
L5 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1952:8508 CAPLUS
DOCUMENT NUMBER: 46:8508
ORIGINAL REFERENCE NO.: 46:1482e-i,1483a-b
TITLE: Preparation of triarylsulfonium halides by the action of aryl Grignard reagents on diphenyl sulfoxide
AUTHOR(S): Wildi, Bernard S.; Taylor, Sheldon W.; Potratz, H. A.
CORPORATE SOURCE: Washington Univ., St. Louis, MO
SOURCE: Journal of the American Chemical Society (1951), 73, 1965-7
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB To PhMgBr from 41.8 g. distilled PhBr, 300 ml. dry ether, and 6 g. Mg was added 300 ml. C6H6, the ether removed, 10 g. Ph2SO (I) in 100 ml. C6H6 added, the mixture refluxed 23 hrs. under N, cooled to 0°, hydrolyzed with 21 ml. HBr (d. 1.38) in 21 ml. H2O, the C6H6 layer extracted with four 80-ml. portions of aqueous 5% HBr, the combined exts. and the aqueous layer from the hydrolysis extracted with six 100-ml. portions of CHCl3, and the CHCl3 removed from the combined exts. to give 8.4 g. (49.4%) colorless Ph3SBr (II), m. 285-6° (crystallized twice from CHCl3-Me2CO), readily soluble in H2O, CHCl3, EtOH, and C5H5N and insol. in ether, Me2CO, or C6H6; AgBr precipitated when the aqueous solution was treated with AgNO3. The C6H6 solution from the hydrolysis, dried over anhydrous Na2SO4 and evaporated to remove the C6H6, gave an amber liquid: vacuum distillation yielded 8.0 g. PhBr, b25 54°, and a fraction b3 108-48° which partially crystallized at 0° to yield 1.18 g. I, m. 70° (from petr. ether). To 1.725 g. II in 25 ml. H2O was added 0.845 g. AgNO3 in 25 ml. H2O, the AgBr removed, and the filtrate evaporated to dryness to give 0.268 g. colorless crystals of Ph3SNO3, m. 227-7.5° (from Me2COCHCl3, 5:1 by volume). With 50 ml. C6H6 and 50 ml. ether, PhLi was made from 1.94 g. Li and 22.2 g. PhBr, 15 g. I in 50 ml. C6H6 added during 3 hrs., and the mixture refluxed 24 hrs., then decomposed with dilute HBr as above; evaporation of the CHCl3 exts. gave 0.05 g. II, m. 284-5° (from Me2COCHCl3, 5:1, by addition of ether). II (1 g.) in 100 ml. H2O was treated with 1 equivalent of moist Ag2O, stirred 3 days at room temperature in the dark, and filtered (the filtrate was strongly basic to litmus); evaporation gave a strongly basic oil which lost basicity on standing at room temperature to yield an amorphous gum. Ph2(p-MeC6H4)SBr was made similarly from the Grignard reagent from 77.8 g. p-MeC6H4Br and 7.74 g. Mg refluxed with 10 g. Ph2SO 24 hrs. at 70°; hydrolysis with dilute aqueous HBr gave 6.01 g. (34%) sulfonium bromide, m. 224-5° (from Me2CO-CHCl3, 5:1 by volume), soluble in CHCl3, H2O, EtOH, and C5H5N but insol. in Me2CO, C6H6, and ether. Similarly the Grignard reagent from 77.8 g. m-MeC6H4Br and 77.4 g. Mg treated with 10 g. I 48

hrs. at 70° gave 41.2 g. (23.4%) (from Me2CO-CHCl3, 5:1, by addition of ether) Ph2(m-MeC6H4)SBr, m. 209-23°, soluble in H2O, CHCl3, EtOH, C5H5N, and insol. in ether, C6H6, or Me2CO. The Grignard reagent from 44.0 g. 2,4-Me2C6H3Br and 6.1 g. Mg treated with 7.2 g. I 75 hrs. at 70° gave 12.1% Ph2(2,4-Me2C6H3)SBr, m. 239-9.5° (recrystn. as above), soluble in H2O, CHCl3, EtOH, and C5H5N but insol in Me2CO, C6H6, or ether. All of the sulfonium compds. prepared gave a blue precipitate in water with the cobaltous ammonium thiocyanate complex used as a qual. test for sulfonium compds. Absorption spectra measurements made in 95% EtOH with a Beckman spectrophotometer, model D. U., are shown on a graph.

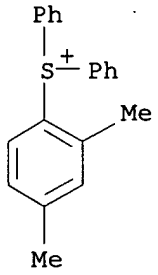
IT 4189-82-6P, Sulfonium, diphenyl-p-tolyl-, bromide
31688-57-0P, Sulfonium, diphenyl-2,4-xylyl-, bromide
347841-66-1P, Sulfonium, diphenyl-m-tolyl-, bromide
RL: PREP (Preparation)
(preparation of)

RN 4189-82-6 CAPLUS
CN Sulfonium, (4-methylphenyl)diphenyl-, bromide (9CI) (CA INDEX NAME)



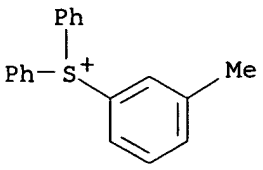
● Br^-

RN 31688-57-0 CAPLUS
CN Sulfonium, diphenyl-2,4-xylyl-, bromide (8CI) (CA INDEX NAME)



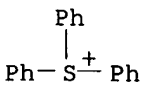
● Br^-

RN 347841-66-1 CAPLUS
CN Sulfonium, (3-methylphenyl)diphenyl-, bromide (1:1) (CA INDEX NAME)

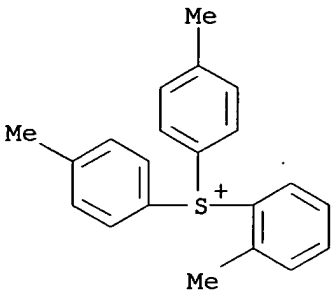


● Br^-

IT 18393-55-0, Sulfonium, triphenyl-
(salts)
RN 18393-55-0 CAPLUS
CN Sulfonium, triphenyl- (CA INDEX NAME)



L5 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1935:1120 CAPLUS
DOCUMENT NUMBER: 29:1120
ORIGINAL REFERENCE NO.: 29:142h-i,143a
TITLE: The phenyl tolyl and ditolyl sulfoxides
AUTHOR(S): Courtot, Charles; Frenkiel, Joseph
SOURCE: Compt. rend. (1934), 199, 557-9
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C. A. 26, 3784; 28, 1028.3. By condensation of the corresponding sulfonyl chlorides of PhMe with C6H6 in the presence of AlCl3 the following compds. were obtained: o-tolyl phenyl sulfoxide m. 42°, b11 220° m-sulfoxide b12 215°. Its sulfone m. 109°. Condensation of o-MeC6H4SO2Cl in the same manner yields o,p'-ditolyl sulfoxide, m. 90°, b9 210deg;. Its sulfone m. 60°. In the same reaction there is also obtained o,p',p''-tritolyl-thionium chloride, m. 128°. o,m'-Ditolyl sulfide on oxidation yields o,m'-ditolyl sulfoxide (I), b9 213°. Its sulfone m. 82°. m,p'-Ditolyl sulfoxide, obtained like I, m. 72°. o,o'-Ditolyl sulfoxide (II), synthesized by the Grignard method, m. 121° yield 26%. m,m'-Ditolyl sulfoxide, obtained like II, b16 215°. No exptl. details are given.
IT 856059-85-3P, Sulfonium, o-tolyldi-p-tolyl-, chloride
RL: PREP (Preparation)
(preparation of)
RN 856059-85-3 CAPLUS
CN Sulfonium, (2-methylphenyl)bis(4-methylphenyl)-, chloride (1:1) (CA INDEX NAME)



● Cl^-

=>

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	103.78	282.35

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-14.40	-14.40

STN INTERNATIONAL LOGOFF AT 09:57:36 ON 06 JUL 2008